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*The*  
**CHEMIST AND DRUGGIST**  
*for RETAILER - WHOLESALER - MANUFACTURER*

Established 1859

28 Essex Street, Strand, London, W.C.2

Registered as a Newspaper

No. 3076  
VOL. CXXX

JANUARY 21, 1939

Annual Subscription (with  
Diary) 20/- Single Copies 9d

If it bears a Red

*Lilly*  
TRADE MARK

— it's right



**'LEXTRON'**

TRADE MARK

BRAND

LIVER-STOMACH CONCENTRATE WITH  
IRON AND VITAMIN B COMPLEX

ISSUED IN PACKAGES OF 42, 84 & 500

'PULVULES' BRAND FITTED CAPSULES

**ELI LILLY & COMPANY LIMITED**

2, 3 and 4, Dean Street, LONDON, W.1.

DISTRIBUTING AGENT IN BRITAIN FOR ELI LILLY & CO INDIANAPOLIS, U.S.A.



**Euthymol**

GRAND PRIX (Highest Award) HILLS DENTAL DECAY GERMS WITHIN 30 SECONDS

A SCIENTIFIC TOILET PREPARATION  
MADE IN ENGLAND

**EUTHYMOL TOOTH PASTE**

PARKE, DAVIS & CO. LONDON

**PARKE, DAVIS & CO.**

**A PROFITABLE DENTIFRICE**

SEND FOR TERMS

PARKE, DAVIS & CO., 50, BEAK ST., LONDON W.1.



PRODUCT OF THE



GLAXO LABORATORIES

# WHY ONE IN SIX OF ALL BRITAIN'S BABIES

*are now on*

# OSTERMILK

## THE SUCCESSFUL BABY FOOD

### *because:*

Ostermilk provides planned, progressive feeding—suited to the needs of all babies, from birth to weaning.

Ostermilk is absolutely safe—safer even than T.T. milk, and this safety is itself safeguarded in specially sealed tins.

The curd of Ostermilk is like that of breast milk, easily digested even by the youngest or most "difficult" infant.

Ostermilk contains *added* vitamin D as a measured assistance for the proper growth of bones and teeth and of iron to guard against nutritional anæmia.

The gradual change over (at 3 to 4 months) from Ostermilk No. 1 to the full-cream Ostermilk No. 2 is so *simple* and without risk of digestive upset.

Ostermilk is sold through Chemists at a price which every mother can afford. The 2/- tin makes approx. 6 pints of food.

### SUCCESSFUL SELLING

### *because:*

Chemists make use of the unique Ostermilk "customer-finding" scheme which costs the Pharmacy *nothing*—not even postage stamps. Ostermilk advertising (always convincing, and

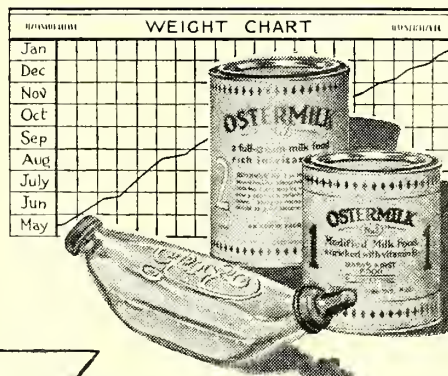
free from exaggeration), appears prominently and regularly in the largest-circulation National newspapers, the leading Mother-interest journals, and the Medical and Nursing Press.

The new 176-page Ostermilk Baby Book, produced and distributed at considerable expense to scores of thousands of expectant and nursing mothers, is proving the strongest and soundest *selling force* in Baby Food history.

The two Ostermilk foods enable the Chemist to hold the goodwill of the mother right to the end of the feeding period—and this maintains also sales of many other lines a mother buys from a pharmacy.

Doctors and Nurses advise Ostermilk consistently, and grateful mothers recommend it to others. These mothers *look* for Ostermilk in pharmacy windows.

*Write for particulars of the "Customer-finding" Scheme.*



GLAXO LABORATORIES LTD., GREENFORD, MIDDLESEX. BYRON 5454



# GLYMIEL JELLY



## Bonus Parcels

FIVE ASSORTMENTS TO CHOOSE FROM

**Closing Date FEB. 1**

*Stock up NOW and obtain these*  
**BONUS TERMS**

**TUBES 3d., 6d. and 1/- DECORATIVE JARS 2/6**

SOLE WHOLESALE AGENTS:

**Sanger's**  
LIMITED

**258 Euston Road, London, N.W.1**

TELEPHONE, ORDER DEPT.:  
EUSon 5010

Proprietors:

Osborne, Bauer &  
Cheeseman, Ltd.,  
42 Hampstead Road,  
London, N.W.1



# The NEW 12 COLOUR SHOWSTAND embracing a novel offer.



## FREE! FOR THE CHILDREN CUT-OUT MODEL STAGE.

Ask inside for an addressed postcard to The Crookes Laboratories.

Post this (id. stamp) with your name and address and a full colour cut-out reproduction of this attractive model stage will be sent free of charge with full instructions.

The cutting out and pasting up of this model will provide hours of instructive amusement for the children.

THE CROOKES LABORATORIES  
British Colloids Ltd.  
Park Royal, London, N.W.10.

A replica of the above stage design in the form of a cut-out with movable figures is offered free of charge to your customers.

Twenty different showcards are available to link this C.F. line in your window with our advertisements in the National dailies, weekly and monthly papers and magazines.

Bonus terms show 70 per cent profit on outlay.



**THE CROOKES LABORATORIES** (British Colloids Ltd.) Park Royal, London, N.W.10

T.G.S.



# EXTRACTS

TINCTURES RESINOIDS  
OLEO-RESINS MEDICINAL RESINS

**EXT. GLYCYRRH. LIQ.**

---

**EXT. IPECAC. LIQ.**

---

**LIQ. PRO OXYMEL SCILLAE**

---

**TINCT. OPII CAMPHORATA**

**WILLIAM RANSOM & SON**

ESTABLISHED 1846

*Ltd.*

*Manufacturing Chemists*

**HITCHIN near LONDON**



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**JONES**

FINEST QUALITY

**METHYLATED SPIRIT**ALL STRENGTHS  
IN STOCK.PROMPT DELIV-  
ERIES IN CASKS,  
DRUMS OR BY  
TANK LORRY.

Send your enquiries to:—

**JONES & CO. (Methylators) LTD., Bow, London, E.3**

TELEPHONE : ADVANCE 3210.

TELEGRAMS : "METHSPIRIT, LONDON."

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# NOW

is the season for **Record Sales**  
OF  
**BRAND'S  
ESSENCE**

**T**HE weather is treacherous! Ills and chills abound! NOW is the time for peak sales of BRAND'S ESSENCE, the life-giving safe stimulant which enjoys the complete confidence of doctors and the general public. Build up your stocks to benefit fully from the big demand created by BRAND'S far-reaching and scientifically-planned advertising. Feature BRAND'S eye-catching display material in your windows and on your counter—IT COSTS YOU NOTHING. And be sure to ask about our FREE WINDOW DRESSING SERVICE.

The Display Unit is in natural colour and is quite ready for use without assembling. It incorporates six dummy cartons of Brand's Essence, thus avoiding stacking and soiling your own stock. There are also three gaily COLOURED SHOWCARDS which hang or stand; and a set of FOUR CROWNERS for Brand's Essence Cartons.

**FREE display material  
in colours  
to back BRAND'S  
most concentrated  
press campaign**

**BRAND & CO. Ltd.**  
Mayfair Works, Vauxhall, London, S.W.8

### POST THIS COUPON NOW

.....Three-dimensional Display Stand(s)

.....Set(s) of Coloured Showcards

Name.....

Address.....

Please send me at once, and free of charge, display material as under:

.....Set(s) of Crowners for Brand's Essence Cartons.





**..the name behind them**  
*keeps them  
 in front*

Thirty years of world-wide progress is a proud record! These four famous home remedies, with the confident name and sound policy of VENO behind them, have never looked back. Consistently and heavily advertised, enjoying a good-will second to none, they are lines which every go-ahead pharmacist should stock and display prominently. No waste! The Veno products are always moving quickly. Don't be caught out of stock!

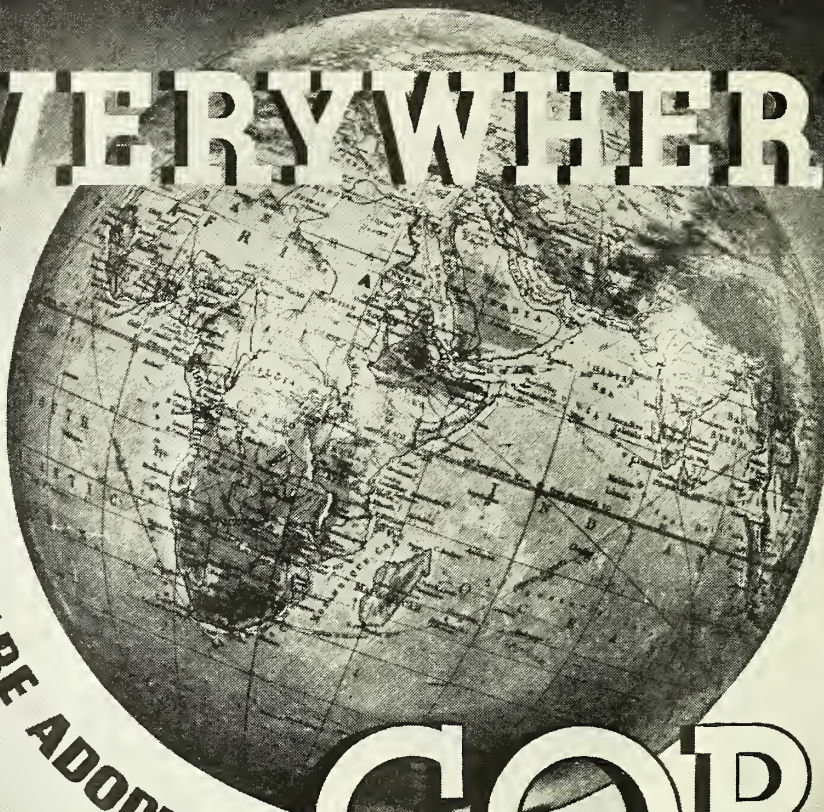
- **VENOS** BRAND COUGH CURE
- **Dr. CASSELL'S** BRAND TABLETS
- **GERMOLENE** BRAND OINTMENT
- **PHENSIC** BRAND

**VENO DRUG CO. LTD.**  
**CHESTER ROAD • MANCHESTER • 16**



# EVERYWHERE

PHARMACISTS ARE ADOPTING



## C.O.B.

All over the world the C.O.B. method of packing is gaining new adherents.

The claim that it establishes Goodwill is repeatedly confirmed by our customers, one of whom writing from South Africa says:—

*"I may add that C.O.B. lines have been a huge success, and have brought me a number of new customers through recommendation."*



*write NOW for  
full details to -*

# ARTHUR H. COX & CO. LTD. BRIGHTON



## WHY ILLNESS STRIKES DOWN SOME CHILDREN—MISSES OTHERS

Today nearly every child gets a cod liver oil tonic in winter. Then why does it protect some children and not others?

ONE THING modern mother learnt is that in winter child's cod liver oil tonic to protect them from illness.

But some mothers are baffled by children who do not get as much benefit as others.

The trouble is that thousands of children are not strong enough to take ordinary cod liver oil. Their digestive systems cannot take such strong food. In its most quickly digestible form, Brand's Emulsion.

When cod liver oil is given in the form of Scott's Brand Emulsion, it is digested by the body's goodness they need.

### REASONS WHY YOUR CHILD NEEDS LIVER OIL TONIC

1. A liver oil is difficult for some children to take. Immediately after taking, they feel sick, and the child's whole system is affected.

2. Brand's Emulsion actually makes the digestive system work more strongly, so that the body gets a nourishment out of food.

3. Brand's Emulsion also contains hypophosphites, which help to build up the child's bones and teeth.

4. Your child a spoonful of Scott's Brand Emulsion three times every day. Trial size, 3, larger sizes 3½ and 5.

### "I dreaded the coming of winter for my girl"

"Every November," writes a Brighton mother, "my little girl used to begin sneezing, and I caught the winter tone through the winter months. But then I read somewhere that Scott's Brand Emulsion was more digestible, so I tried that. You should see her now! Not a cold all last winter. It was a treat to see the little mite putting on weight and becoming rosy-cheeked and bouncing."



"BRAND'S will help that gastric trouble"

DID YOU KNOW that pain after eating, sleeplessness, irritability, most of the discomforts stomach sufferers endure have been relieved time after time by taking Brand's Emulsion?

That is because Brand's Emulsion does three things. It forms no solids at any stage of digestion, and so puts no strain on the digestive system. It stimulates the gastric juices without inducing over-acidity. It turns you perfectly while your stomach has what it has perhaps been needing for years—a real rest and holiday.

In all digestive weakness—chronic or nervous dyspepsia, gastric ulcer, etc.—take BRAND'S ESSENCE

2½ 3½ 5 at all chemists

# MUSTEROLE SAL HEPATICA, BRAND'S AND SCOTT'S EMULSION talk to 3 million families seven days a week through THE RADIO TIMES

What would your chemist use for his—

SORE THROAT,  
CHEST COLD?

There isn't a mother in the country who wouldn't know the answer to that question. For she doesn't do by price. They know which is the most useful, safest thing to use, so though they have tried hundreds of chemists through the country, they have told us that the one they themselves use is always



MUSTEROLE BRAND  
MUSTARD OINTMENT

## Sal Hepatica

recommended by Physicians  
for over 40 Years . . . to  
overcome  
RHEUMATISM

The Laxative Salines in Sal Hepatica cleanse the intestinal tract and keep the whole system sweet and clean, relieving headaches, biliousness and digestive upsets. At the same time the Spa Minerals directly stimulate the liver, gall-bladder and kidneys, revitalising your mind and body. Finally the Balanced Alkalines in Sal Hepatica correct excess acids in the blood by maintaining the precious alkaline reserve of the body, so essential for perfect health and fitness.



FREE TRIAL

For forty years Physicians have recommended Sal Hepatica as there is no other of its kind. We offer you a FREE trial supply, confident that Sal Hepatica will meet your need. Simply send your name and address on a postcard, stamped and paid to: BRISTOL-MYERS CO., LTD., (Incl. No. 819) STURTS, BEDFORD ROAD, LONDON, E.C.1. WRITE IN BLOCK LETTERS, PLEASE!

The Radio Times is read by 3 million families every week. The average family contains 4 people. So the Radio Times reaches 12 million people or more than one-quarter of the total population of this country. Regular advertisers in this magazine, like Musterole, Sal Hepatica, Brand's and Scott's Emulsion, talk to these millions and interest them in their products. There are thousands of families in your district who have seen the advertisements illustrated above. Are you displaying Musterole, Sal Hepatica, Brand's and Scott's Emulsion, and letting your customers know that you have them in stock?

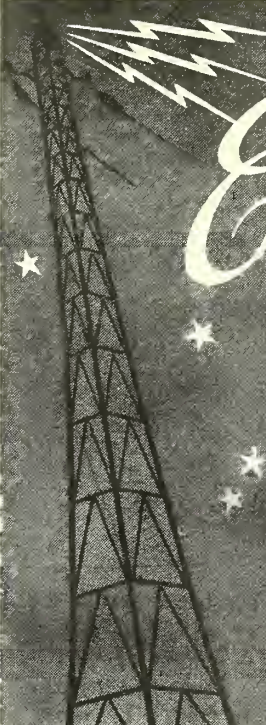
Feature goods advertised in  
**RADIO TIMES**  
Reaches 1 in 4 of your customers

## OTHER PRODUCTS FOR YOU TO DISPLAY

- |                                |                               |                              |
|--------------------------------|-------------------------------|------------------------------|
| Alka-Seltzer                   | Crookes Halibut Liver Oil     | Macleans Peroxide Toothpaste |
| Allenburys Diet                | Dettol                        | Nostoline                    |
| Allenburys Pastilles           | D.D.D. Prescription           | Odol Toothpaste              |
| Angiers Emulsion               | Erasmic Shaving Stick         | Optrex Lotion                |
| Bengers Food                   | Famel Syrup                   | Pears Soap                   |
| Borrit                         | Fynnon Salt                   | Phillips Yeast Products      |
| Bob Martin's Condition Powders | Genasprin                     | Phosferine                   |
| Bournvita                      | Gibbs S.R. Toothpaste         | Ponds Cream                  |
| Beechams                       | Gibbs Dentabs                 | Sanatogen                    |
| Bemaz                          | Gibbs Cold Cream              | Snowfire Jelly               |
| Bisurated Magnesia             | Gibbs Shaving Cream           | Steradent                    |
| Briggs Charcoal                | Glymiel Jelly                 | Silvikrin                    |
| Brylfoam                       | Hinds Almond Cream            | Stoans Liniment              |
| Carters Little Liver Pills     | Horlicks                      | Tokalon                      |
| Calverts Tooth Powder          | Instant Postum                | Trifood                      |
| Cromessol Disinfectant         | Iron Jellies                  | Vaper                        |
| Perfumes                       | Kolmos                        | Vaseline Hair Tonic          |
|                                | Lux Toilet Soap               | Veno's Cough Cure            |
|                                | Macleans Brand Stomach Powder |                              |

They are advertised regularly in the Radio Times





# Evening in Paris

**NOW ON  
RADIO NORMANDY**

SO GREAT WAS THE SUCCESS OF "ELISE," the glorious "thriller" broadcast from Radio Lyons, that we have booked the ideal time of 6.15 p.m. to 6.30 p.m. every Sunday throughout the year 1939—52 programmes of the best possible entertainment value to be broadcast from

**RADIO NORMANDY (274 Metres)**

*Further announcements later. Don't forget to tell your customers.*

# BOURJOIS



## 3 BIG SELLERS in 1939

### NUFIX *The Quality Hair Dressing*

Year in, year out, Nufix sales are ever increasing, due to public appreciation of quality. Constant advertising creates new customers, Nufix quality keeps them for you.

### NUFOAM *Everybody's Shampoo*

*Vitamin*  
**HAIR TREATMENT  
SHAMPOO**

The modern method of cleansing the hair and scalp. Shampoo, Treatment, Hair Revitalizer and Reconditioner all in one. EVERYBODY'S SHAMPOO. In attractive tubes, each containing sufficient for three shampoos, packed in attractive Cartons. 3 Shampoos for 6d. Trade Price : 4/- per dozen.

### NULON *For Nail Culture*

Nulon strengthens the nails, eliminates brittleness, removes rough edges and stains. In attractively cartoned Tubes. Retail 6d. Trade : 4/- doz.

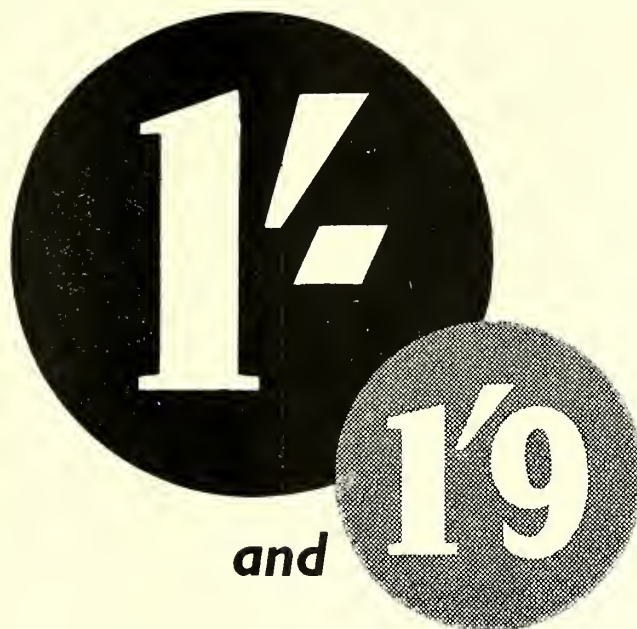
*Made by the makers of Nufix... your guarantee for Quality.*

WALDEN & CO. (NUFIX) LTD. NUFIX WORKS, THE HYDE, LONDON, N.W.9



# PEPSODENT TOOTH PASTE

*is still worth*



**TO YOU AND YOUR CUSTOMERS !**

*Give them the extra value of*

**IRIUM** *in* **PEPSODENT**

PEPSODENT LTD., PARK ROYAL ROAD, LONDON, N.W.10



## SHEEP IN CLOVER

'It is better to be a dead lion than a live lamb,' said Mussolini, encouraging his volunteers.

'Not a bit of it' says the British sheep, refreshed by his annual dip in alcohol.★

Lucky sheep, to be bathed in Solco Spirit, pure, fragrant, reliable, and ever uniform. Wise industrial users who thus ensure the excellence of what they make!

★ *Customs and Excise returns show many thousands of gallons of Industrial Methylated Spirit used annually in making sheep-dips.*

# SOLCO SPIRIT

INDUSTRIAL METHYLATED SPIRIT  
(all grades)

PERFUMERY METHYLATED SPIRIT

S.V.R. PLAIN BRITISH SPIRIT

MINERALISED METHYLATED SPIRIT



**SOLVENT PRODUCTS LIMITED**  
**BUSH HOUSE, LONDON, W.C.2**

TEMPLE BAR 2237-8

## MIDLAND BANK

LIMITED

*Chairman :*

THE RIGHT HON. R. McKENNA

*Deputy Chairmen :*

W. G. BRADSHAW, C.B.E.

S. CHRISTOPHERSON

*Chief General Manager :*

HERBERT A. ASTBURY

### STATEMENT OF ACCOUNTS

December 31, 1938

#### Liabilities

	£
Capital paid up ... ..	15,158,621
Reserve Fund ... ..	12,410,609
Current, Deposit and other Accounts ... ..	464,249,757
Acceptances and Confirmed Credits	8,734,236
Engagements ... ..	8,483,612

#### Assets

Coin, Notes and Balances with Bank of England ... ..	53,651,380
Balances with, and Cheques on other Banks ... ..	17,813,029
Money at Call and Short Notice	25,089,239
Investments at or under market value ... ..	118,869,021
Bills Discounted: £	
British Treasury Bills 27,035,202	
Other Bills ... 21,463,608	48,498,810
Advances and other Accounts	209,255,066
Liabilities of Customers for Accep- tances, Confirmed Credits and Engagements ... ..	17,217,848
Bank Premises and other Properties	9,689,274
Shares in Yorkshire Penny Bank Ltd.	937,500
Investments in Affiliated Companies:	
Belfast Banking Co. Ltd. ...	1,795,836
The Clydesdale Bank Ltd. ...	3,195,114
North of Scotland Bank Ltd. ...	2,579,843
Midland Bank Executor and Trustee Co. Ltd. ... ..	444,875

A 32-page illustrated book entitled  
"THE SERVICE OF THE MIDLAND BANK"  
describes the wide range of facilities available  
to customers. A copy may be obtained, on  
personal or written application, at any of the  
2139 branches in England and Wales, or at the

**Head Office :**  
**POULTRY, LONDON, E.C.2**





## THE NATIONAL SAVINGS SERVICE



### **HOLIDAY CLUBS**

### **PROVIDENT SCHEMES**

For twenty-three years the National Savings Committee has been assisting an ever-increasing number of employers to organise savings facilities for the benefit of their employees.

A facility now specially popular is the NATIONAL SAVINGS HOLIDAY CLUB. These Clubs can be used not only for personal saving by employees but, in addition, for the accumulation of Holiday Pay Allowances, where desired, by the employer.

The Committee has had wide experience in establishing on a business-like footing Share Out and other kinds of Saving Clubs.

For employers who wish to help their employees to make provision to meet special requirements in the future, such as marriage, retirement, or assistance to dependants in case of death, the Committee will be pleased to submit draft PROVIDENT SCHEMES specially drawn up to meet particular circumstances.

The Committee will always be glad to send an experienced representative to discuss your individual requirements and every assistance will be given in starting a scheme, including the provision of a speaker to address employees, and the preparation of a special explanatory letter for distribution. Membership cards, books, etc. are provided free.

*Enquiries should be addressed to the*  
**NATIONAL SAVINGS COMMITTEE**  
*(Ref. T.I.E.), LONDON, S.W.1*

# Caradium

## HAIR RESTORER

### The Recognised Preparation for Restoring Grey Hair. IT IS NOT A DYE

CARADIUM enjoys a wonderful popularity with the Public as a unique preparation that is really SAFE and EFFECTIVE for restoring the colour to grey or faded hair. It contains radio active water that ensures success when other treatments fail.

CARADIUM is NATIONALLY ADVERTISED. Make sure you have sufficient stocks of this seller.

Retail prices 4/- and 7/6. Wholesale, 25% allowed on  $\frac{1}{2}$  Dozen and over.

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### SALES ARE EASIER DAY BY DAY!

### 6,000,000 Women read Adelaide Grey's

### LALEEK Advertisements every month

STOCK AND DISPLAY THESE TWO STAR LINES—

★ LALEEK  
★ LONGLASH

★ LALEEK  
★ WAX-A-WAY

Obtainable through your Wholesaler, or direct from  
ADELAIDE GREY LTD., 27 OLD BOND STREET, W.1

PATENT PENDING.

THE "NoShock"  
UNBREAKABLE

### REAL IMPROVEMENTS!

Hermetically Sealed

Hermetically Sealed

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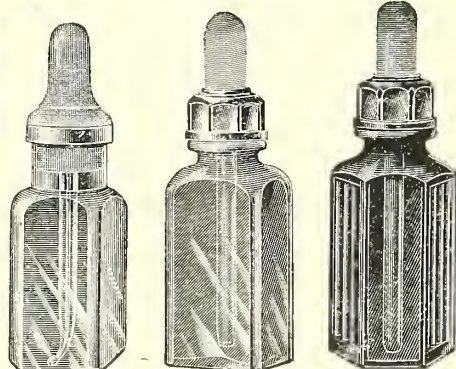
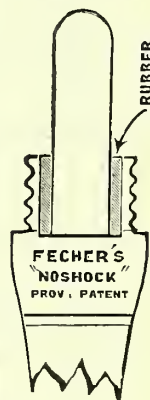
Camel Hair 3/6 doz. Squirrel Hair 4/6 doz.

### THE NOSHOCK CAUSTIC PENCIL

THE POINT IS SET IN RUBBER, WHICH HOLDS IT IN POSITION BUT COUNTERACTS ALL SHOCKS

40 60 90% Arg. Nit.  
3/- 3/3 3/6 doz.

Samples of both lines  
free for 6d. stamp



"Regulator" 308

"Oiltite" Amber Square 800

"Oiltite" Blue Poison 801

### OILTITE DROP BOTTLES

	1	2	3	drn	$\frac{1}{2}$	1	2	oz.
The "REGULATOR" old	—	4/-	—	4/3	5/-	6/-	doz.	
new	—	3/6	—	3/9	4/-	5/6	"	
The "OILTITE" SQUARE old	4/6	4/9	5/-	5/3	5/9	6/3	"	
new	4/-	4/-	4/-	4/3	5/-	6/-	"	
BLUE or GREEN POISON new	—	—	—	4/-	4/6	dozen.		

From Wholesale Houses or from the Makers:

M. J. FECHER LTD., 10 Dod Street, London, E.14

PHONE: EAST 3228

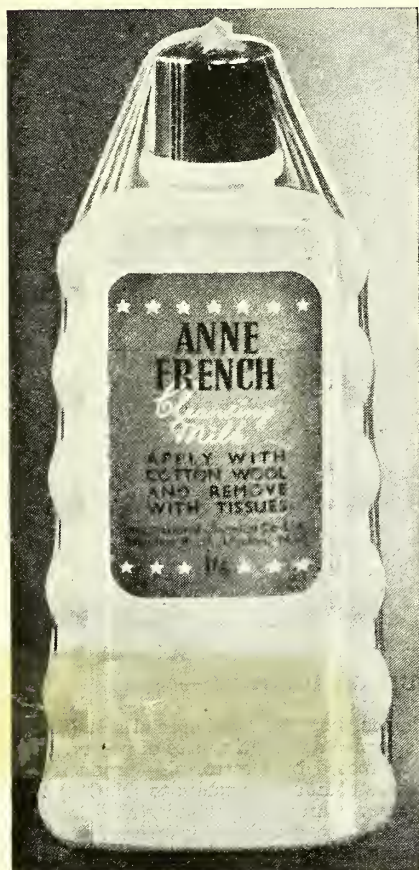
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# DISPLAY BONUS WORTH HAVING

## 12 Bottles charged as 10

Available until JANUARY 31<sup>ST</sup> 1939



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### *Cleansing Milk*

**TWO** reasons why **YOU** should stock this product:—

#### ★ INCREASED RADIO AND PRESS ADVERTISING

Daily Morning Programmes from Radio Normandy.  
Three Afternoon Programmes a week from Radio Luxemburg.

$\frac{1}{4}$  pages in ALL leading Women's papers.

#### ★ EXTRA PROFIT FOR YOU

50% PROFIT available for **YOU** on best terms.



#### ADDITIONAL QUANTITY DISCOUNTS FOR BONUS PARCELS

£2	5%	= 47.2%
£5	7½%	= 48.6%
£10	10%	= 50.0%

Other I.C.C. products may be included.

Your return **18/-**  
Your cost **10/-**  
**Profit 8/-**  
**= 44.4%**

This attractive Counter Display Stand to hold three bottles will be sent with each order.

To International Chemical Co. Ltd.  
Braydon Road, London, N.16

Please send ..... doz. ANNE FRENCH CLEANSING MILK on Special Display Terms

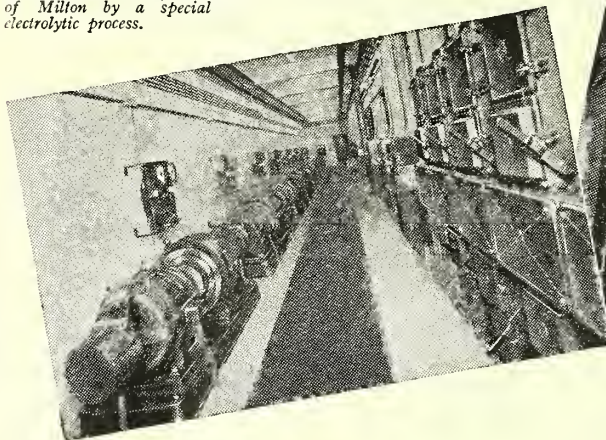
12 charged as 10

NAME .....

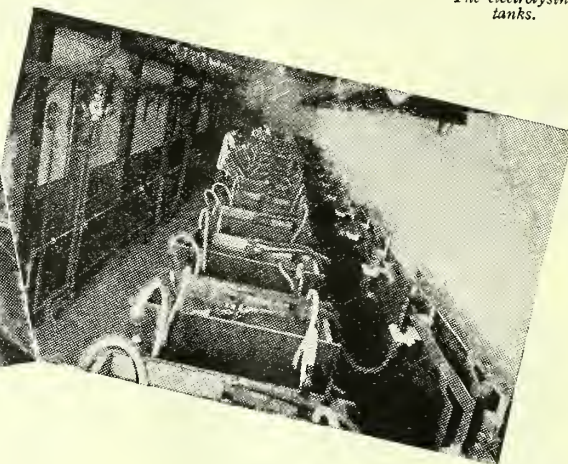
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Battery of motor generators used for the manufacture of Milton by a special electrolytic process.



The electrolysing tanks.



# Milton in the Making!

## *How this famous non-caustic hypochlorite is prepared . . . .*

Despite the fact that the Milton formula is published on every bottle and in every "Instructions for Use" booklet, it is often suggested that the composition of this remarkable fluid contains certain caustic elements—such as form the base of other hypochlorite preparations.

This is not so. Milton is completely non-caustic. Its manufacture may be summed up as follows:—

A brine solution is prepared from special salt (NaCl), supplied to a specified and high degree of purity. This solution is decomposed by electrolysis—producing in its ultimate phase sodium hypochlorite (NaOCl) in a highly active state. An all-important stabilising process follows and the resultant liquid is *Milton*; 80 times more germicidal than carbolic 5 per cent. solution; non-toxic and non-corrosive; possessing in its most active form the unique hypochlorite property of dissolving albumens and proteins; and having twice the penetrative power of Dakin's Fluid.

Immediately after stabilisation the fluid is checked for strength—by titration, analysis and a bacterial culture test. The next day, before bottling, a similar, but double, check is taken, once in the Works and again in the Laboratory. Samples of every day's production are retained for two years.

Such is Milton, the safe antiseptic for use in and on the human body.

\* \* \*

Chemists are invited to write to Department C.D., Milton Proprietary Limited, John Milton House, London, N.7, to arrange a visit to the Works, which are open for inspection by appointment every weekday except Monday and Saturday.

### INDICATIONS

**GARGLING.**—As a prophylactic measure or as routine treatment of infection.

**CATARRH.**—A solution not exceeding 5 per cent. is most efficacious when applied by spraying. (Milton Nasal Spray, 3/- from chemists.)

**DOUCHING.**—Milton is alkaline, deodorant, germicidal, miscible with mucus and pus; harmless to delicate internal membranes.

**WOUNDS, CUTS, SCALDS.**—The hypochlorite characteristics of Milton are invaluable for cleansing, sterilising and dressing.

**MILTON—THE SAFE ANTISEPTIC FOR USE IN AND ON THE HUMAN BODY**



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RELIABLE

## ELASTIC HOSIERY

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For special garments to  
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QUALITIES

## ANNOUNCEMENT TO THE TRADE



H & H Trading Agencies Ltd. have pleasure in announcing that they have been appointed official Distributors for this famous French house. All orders and correspondence for Bienaimé should in future be addressed to them.

A complete new Price List will shortly be ready for distribution, to be followed by an extensive Spring advertising campaign.

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Telephone: Mayfair 4323

# 75% PROFIT ON OUTLAY FOR SEVENSEAS

## ★ BONUS OFFER ★

One bottle free with every six you order between January 18th and February 25th! Minimum 3 dozen.

### HOW IT WORKS OUT

With every half-dozen bottles of SEVENSEAS you order during the Bonus Offer period you get one bottle *free*!

### FOR EXAMPLE—

Half a dozen bottles of SEVENSEAS High Potency Oil costs you 5/-.

But you get 7 bottles for the money instead of 6.

You sell the 'half-dozen' at 1/3 each.

That brings in 8/9.

Bought for 5/- . . . sold for 8/9 . . .

That gives you a profit of 75%!

### HOW TO GET YOUR FREE BOTTLES

Just order from your wholesaler in the usual way. The free bottles will arrive in your parcel. This applies to all orders of three dozen or over. All we ask is that you should order in level half-dozens of the same pack, and promise to display the SEVENSEAS showcard in your window or on your counter for a fortnight. Take advantage of this offer now!



#### SEVENSEAS HIGH POTENCY

Pure cod liver oil, not artificially concentrated but with greater natural vitamin content (four times the standard laid down by the British Pharmacopoeia). P.A.T.A.  
Selling Price: 1/3 per bottle.



#### SEVENSEAS CAPSULES

Each capsule contains five drops of High Potency Oil; the full dose for adults. The capsules are absolutely tasteless. P.A.T.A.  
Selling price: Bottle of 25, 1/6  
Bottle of 50, 2/9 " " 100, 5/-



#### SEVENSEAS STANDARD

Pure Fresh Cod Liver Oil  
Complying with the requirements of the British Pharmacopoeia. P.A.T.A.

4 oz. Bottle, Selling price 10d  
8 " " " " 1/3  
16 " " " " 2/3

# SEVENSEAS

## COD LIVER OIL



## HERE'S A GREAT NEW IDEA THAT WILL DOUBLE THE DEMAND FOR 'SEVENSEAS'

Not only is powerful advertising appearing regularly in the papers mothers read, but on January 26th the Daily Mail runs the first of four special baby competitions—and the prize money in each one is doubled if the mother buys SEVENSEAS before entering. The Daily Mail expect hundreds of thousands of entries for these competitions. And no mother will miss the chance of doubling her winnings by buying SEVENSEAS. That means hundreds of thousands of extra sales for chemists—for SEVENSEAS can only be bought at chemists' shops. Remember January 26th is the date. So you can stock up for this big demand and get the advantage of the bonus offer as well! And the SEVENSEAS showcard in your window will tell mothers that they can get their SEVENSEAS from YOU!



# **HAVE YOU TRIED POTTERS ?**

*We ask for your enquiries  
for prices and samples of*

## **OLEO-RESIN CAPSICI**

B.P.C. 1934. B.P.C. 1923. U.S.P. Water Soluble

## **EXT. FILICIS. B.P.**

EXTRACT OF MALE FERN

## **EUGENOL**

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IN BARS OR POWDER

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# **POTTER & CLARKE LTD.**

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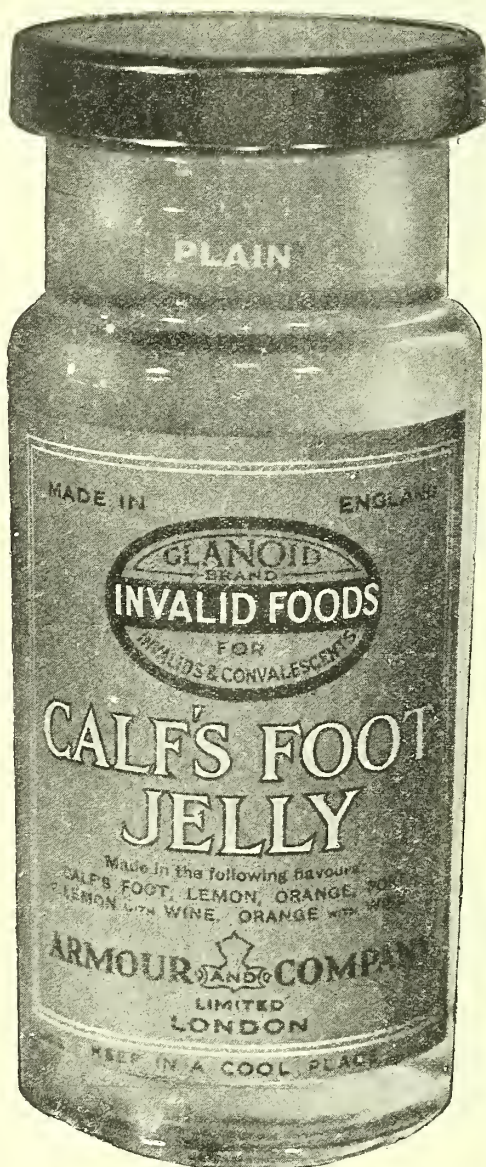
60-64 Artillery Lane, London, E.1

Phone : Bishopsgate 4761-6

MANCHESTER :

77 Dantzic Street, Manchester, 4

Phone : Blackfriars 8734



**SOLD BY CHEMISTS ONLY**

RETAIL PRICE 1/6 per JAR

CHEMISTS' PRICE 10/- doz.

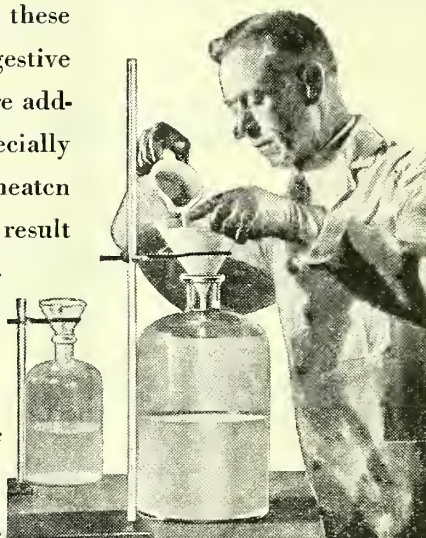
Send for sample and details of bonus terms to:

THE  
**Armour Laboratories**  
(ARMOUR AND COMPANY LTD.)

ARMOUR HOUSE • ST. MARTINS • LE GRAND • LONDON • E-C-1

# HE BOTTLES DIGESTION!

He's a scientific wizard. His job is to extract, purify and bottle the digestive enzymes, trypsin and amylase from mammalian pancreas — trypsin for the modification of milk protein, and amylase for starch conversion. In due course these bottled digestive enzymes are added to a specially prepared wheaten base. The result is a farinaceous food which has the unique property of partial self-digestion.



It is this combination of the enzymes of natural digestion with Benger's Food which distinguishes Benger's from all other foods. Benger's Food possesses the all-important advantage that the extent of self-digestion can be adjusted while being made to suit individual conditions.



BENGER'S FOOD, LTD.  
Holmes Chapel, Cheshire

**TELL THEM THIS ABOUT BENGER'S FOOD.** Tell your customers that Benger's Food contains pancreatic digestive enzymes, and that when the hot milk is poured on to the cold mixture — according to directions for making — the resulting temperature releases these enzymes to do the work of partially digesting both Food and milk. Tell them also that Benger's only takes as long to make as half a pint of milk takes to boil.

T.4a





# "HAZELINE" (Trade Mark) SNOW"

The original non-greasy preparation for the skin. Firmly established in the esteem of discriminating purchasers. Supported by a strong sales background.

Glass jars, 15/- per doz. Collapsible tubes, 5/5 per doz.

*London Prices to the Medical Profession*

I, Pandit Ram Shankar Bajpai, of 105, 524, Anandbagh, Cawnpore, India, tender to Messrs. Burroughs Wellcome & Company (The Wellcome Foundation, Limited), of Bombay and London, my humble apology for infringement of their trade marks "Hazeline" Snow" and snow-clad mountain devices and agree to publication of this apology.

I hereby undertake to withdraw from sale and to destroy, or hand over, all labels, cartons, printing blocks, and other printed matter which simulate the get-up or style of "Hazeline" Snow" by the use of the term "Hazleano" or by the predominant use of snow-clad mountain devices.

Further, I undertake that I will not use hereafter any name, or mark, or label, or carton, which is similar to or has any resemblance to the names or marks or cartons or labels of the products of Messrs. Burroughs Wellcome & Company.

Dated this twenty-fourth day of November, 1938

५: १०५२४ अनांदाग  
Ram Shankar Bajpai  
Cawnpore



THE FRAUDULENT PACKAGE

In the interests of pharmacists, the public and ourselves, manufacturers and vendors of IMITATIONS of "HAZELINE" SNOW" are rigorously prosecuted.



G 2102

BURROUGHS WELLCOME & CO., LONDON

SUPREME QUALITY IS BURROUGHS WELLCOME QUALITY

## A P O L O G I E S

We, Bhola Nath, Gorakh Nath, Purana Nach Ghar, Cawnpore, India, tender to Messrs. Burroughs Wellcome & Company (The Wellcome Foundation, Limited), of Bombay and London, our humble apology for infringement of their trade marks "Hazeline" Snow" and snow-clad mountain devices and agree to publication of this apology.

We hereby undertake to withdraw from sale and to destroy, or hand over, all labels, cartons, printing blocks and other printed matter which simulate the get-up or style of "Hazeline" Snow" by the use of the term "Hazreano" or by the predominant use of snow-clad mountain devices.

Further, we undertake that we will not use hereafter any name, or mark, or label, or carton, which is similar to or has any resemblance to the names or marks or cartons or labels of the products of Messrs. Burroughs Wellcome & Company.

Dated this twenty-eighth day of November, 1938

५: १०५२४ अनांदाग

Cawnpore



THE FRAUDULENT PACKAGE

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# *Warrick's*

## EPHEDRINE PREPARATIONS

are

### ALWAYS IN SEASON

*In Winter* — *Colds*

*In Summer* — *Hay Fever*

*In all Seasons* { *Asthma*  
                          *Catarrh*

## EPHEDRINE NASAL COMPOUND

*Ephedrine in Solution in Oil. Also containing Menthol, Eucalyptol and Camphor.*

Packed in dropper bottles in cartons.  
Cartons and labels are available  
in a variety of styles and chemist's  
own name and address can be  
printed on orders of 3 dozen and  
more if desired.

Per **9/-** doz.

Attractive Show Stand

sent out with every order for 1 doz. or more

For full particulars of this article  
and of other Ephedrine Preparations

*Please write to*

# WARRICK BROTHERS LTD.

WARRICKERS  
NORDO, LONDON

6 NILE STREET, LONDON

CLERKENWELL  
2452





# The CHEMIST AND DRUGGIST

for RETAILER - WHOLESALE - MANUFACTURER

The official organ of The Pharmaceutical Society of Ireland, The Pharmaceutical Society of Northern Ireland,  
The Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in Overseas Dominions

Published Weekly at

28 ESSEX STREET, STRAND, LONDON, W.C.2

Telegrams: "Chemicus, Estrand, London"

Telephone: Central 6565 (10 lines)

## BRANCH OFFICES

MANCHESTER: 4 CANNON STREET (TEL.: BLACKFRIARS 3052)  
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GLASGOW: 19 WATERLOO STREET (TEL.: CENTRAL 2329)  
BIRMINGHAM: 111 NEW STREET (TEL.: MIDLAND 2921)

AUSTRALIA: 19 QUEEN STREET, MELBOURNE, C.I.  
NEW ZEALAND: 55A SHORTLAND STREET, AUCKLAND  
PARIS: 155 AVENUE DE WAGRAM, XVII<sup>e</sup> (TEL.: ETOILE 19-79)

## News of the Week

### Business Changes

MR. HENRY KITCHENER, M.P.S., has opened a pharmacy at Cranmer Court, 61 Sloane Avenue, London, S.W.3.

THE FENTON MANUFACTURING CO., LTD., powder puff manufacturers, have removed to 145 Farringdon Road, London, E.C.1. Telephone: Terminus 5165-6.

### Key Industry Duty Notice

Application has been made to the Board of Trade, under Section 10(5) of the Finance Act, 1926, for an Order exempting MALEIC ACID and MALEIC ANHYDRIDE from liability to duty under Part I of the Safeguarding of Industries Act, 1921. Any communication should be addressed to the Principal Assistant Secretary, Industries and Manufactures Department, Board of Trade, Great George Street, London, S.W.1, before February 16, 1939.

### Pharmaceutical Society of Great Britain

The following are the results of the Pharmaceutical Chemist Qualifying examination held in London during January:—

Entered, 27; passed, 14; failed, 5; referred, 6; absent, 2.

The following candidates satisfied the examiners:—

Agrawala, C. P.	Emmett, F.
Bannister, R.	Maton, D. T.
Barber, Joan F.	Philippe, A. H.
Basu, K. B.	Searle, T. E.
Bowler, J. W.	Shaw, A. G.
Dewey, J. R.	Stewart, Hilda K. M.
Dilley, G.	Weeks, G. W.

### Proprietary Articles Trade Association

ADDITIONS TO PROTECTED LIST.—*Bourjois, Ltd.*, Evening in Paris products: Miniature perfume, No. 2902, 1s. 3d., 10s. doz.; perfume, No. 1296, 3s. 6d., 28s. doz.; No. 1297, 6s. 6d., 52s. doz.; No. 1298, 10s. 6d., 84s. doz.; No. 1315, 21s., 168s. doz.; perfumed Cologne, No. 3019, 1s. 6d., 12s. doz.; No. 3018, 2s. 6d., 20s. doz.; face powder, No. 1301, 1s. 9d., 14s. doz.; No. 6330, 1s., 8s. doz.; compact rouges and powders in enamelled case, No. 6285, 2s. 6d., 20s. doz.; in bakelite case, No. 6298, 1s., 8s. doz.; vanishing cream, No. 6270, 1s., 8s., doz.; No. 1290, 2s., 16s. doz.; No. 2950 (tubes), 9d., 6s. doz.; hair cream, No. 6105, 1s. 6d., 12s. doz.; hair cream with oil, No. 6334, 1s. 6d., 12s. doz.; talcum powder, No. 1304, 2s., 16s. doz. *Parke, Davis & Co.*, Desibyl capsules, 0.325 gm. (5 grains), 50's, 4s. 6d., 36s. doz.; prices in Ireland (Eire), 4s. 9d., 38s. 3d. doz.

ALTERATIONS.—*Aimée Lloyd & Co. (1933), Ltd.*, Lloyd's Euxesis: on orders of half doz., 6d. size, one free tube will be given; display terms: on orders of one doz., 1s. 4d. size, one

extra tube will be given in return for window display. *Coty (England), Ltd.*, lipsticks, Continentale model, No. 88, 2s. 6d., 21s. doz. *Glaxo Laboratories, Ltd.*, Fersolate tablets, 1,000's, 11s. 6d., 103s. 6d. doz. *Parke, Davis & Co.*, the product Siblin will be known in future as Vi-Siblin.

### Exhibition of Scottish Art

Beyond the portrait by Raeburn of "Mrs. Gregory" (116) (wife of Professor James Gregory, inventor of Gregory's Powder), there is little of definite pharmaceutical interest in the Exhibition of Scottish Art now open at the Royal Academy, London. Two other Raeburns represent "Professor John Robison" (86), who was secretary of the Royal Society, Edinburgh, from 1739 to 1805, and "Dr. Nathaniel Spens" (118), president of the Royal College of Physicians, Edinburgh, from 1794 to 1796. Both are shown in quite unprofessional attire. Professor Robison is in a red-striped dressing-gown and white night-cap, while Dr. Spens is in archer's uniform in the act of shooting. He was apparently a prominent member of the Royal Company of Archers. Another curious portrait is that of the "Rev. John Barclay, M.D." (182), painted by John Syme in 1758. It appears that after being licenced as a minister, Barclay studied medicine and became a well-known lecturer and writer on anatomy. He is represented half-length with his left hand resting on a skull. In the Lecture Room Shannan's portrait of "Lord Kelvin" (395) is to be seen. This was painted in 1896, and shows that eminent scientist bareheaded in academic robes. A silver toilet set produced in 1703 for the daughter of the fifth Lord Blantyre (937) is of some interest so far as design is concerned, and there are two pewter rose-water dishes, triple-tiered, of sixteenth century manufacture (1181) and (1184) on view in the Central Hall. Both bear on copper and enamel boss the Royal Arms of James VI of Scotland and I of England.

### Birmingham

DANCE.—A dance arranged by the Birmingham Ladies' Conference Committee was held at Handsworth on January 11. Mr. E. C. Thonger acted as M.C. and 120 members and friends attended. Competition-dance prizes were won by Mrs. Denavon, Miss Golding, and Messrs. V. Williams and Norton. Miss I. Smith raffled a rug, which realised about £3 10s. for the Conference Fund.

OUTLINE OF N.P.U. ACTIVITIES.—A meeting of the Birmingham Branch of the National Pharmaceutical Union was held on January 10. Mr. W. J. Tristram (a member of the N.P.U. Executive) addressed the branch on "Some Aspects of N.P.U. Organisation." The attendance was disappointing. Mr. Tristram described the Union's position in regard to prosecutions

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under the Pharmacy and Poisons Act, and their effort to obtain just provisions in the Shops (Sunday Trading Restriction) Act. The steps taken in reference to the proposed revision of medicine-stamp duty, when long established privileges of all who had served an indentured apprenticeship were seriously threatened, were outlined. Mr. Tristram referred to the much more satisfactory contract recently concluded for N.H.I. dispensing, for which the efforts of the Union's Executive had been largely responsible. The Chemists' Friends scheme, he said, was still making headway. Twenty-five firms were on the list in 1936, and to-day there were more than ninety. A wholesalers' list had been established and the whole movement had been reorganised into an association, with a controlling council which included manufacturers and retailers. The more support given to this scheme by ordinary pharmacists, the more rapid would be its progress. The membership of the Union was increasing steadily and now consisted of over 80 per cent. of the chemists in business. The clearing house was an outstanding success and over 2,000 members regularly used this system for payment of accounts. The meeting concluded with a vote of thanks to Mr. Tristram, proposed by Mr. G. Knowles and seconded by Mr. E. C. Thonger.

### Liverpool

CONFERENCE RESOLUTIONS.—A proposition that "Liverpool and District Branch of the Pharmaceutical Society urges the Council to continue to press with unremitting vigour for commission rank for pharmacists doing pharmaceutical work in H.M. forces" was unanimously adopted at a meeting of the branch held on January 5. It will be submitted as a notice of motion for the British Pharmaceutical Conference, Birmingham, 1939. Mr. L. W. Mussell, who introduced the discussion, contended that a strong effort ought to be made to secure recognition of the pharmaceutical profession in the services. There had appeared in the Press recently a picture of R.A.M.C. men being trained in bacteriology (see *C. & D.*, December 31, p. 714). Such work should be regarded as worthy of commissioned rank. In the event of chemical warfare, pharmacists would have to undertake onerous and responsible duties which entitled them to recognition. Mr. J. L. Hirst said this was a subject which had been engaging attention for a long time. In the event of war, it would be anomalous if pharmacists with university degrees held the rank of sergeants or warrant officers. He did not say this in any snobbish manner; what he did contend was that the pharmacist should have the recognition to which his professional training entitled him. Miss E. Dobie asked whether anything could be done to make it compulsory for hospitals to employ a pharmacist. If a shop must have a pharmacist why not a hospital? The chairman (Mr. John Rae) declared that everyone was in sympathy with that suggestion, but he did not know whether it would serve any useful purpose to discuss it at the Conference. Mr. J. L. Hirst commented on the difficulty there would be in arriving at a suitable and acceptable definition of the word "hospital." There was also discussion on the resolution submitted by the Liverpool Branch to the last Conference. This referred to the advertising of positions carrying a salary below a certain amount.

Mr. A. L. Saul asked whether a scheme could be devised whereby trade journals would agree not to accept advertisements inviting applications from pharmacists in cases where the salary offered was below £200 per annum. The chairman stated that so far as Liverpool was concerned, it was a waste of time to discuss the matter at this juncture. Miss E. Dobie commented that whilst it was impossible for a shop to carry on without a chemist, it was not impossible for a hospital to carry on without a qualified person in charge of dispensing. If hospitals found they could not advertise vacancies in the trade journals unless they announced a certain minimum salary, it was probable that voluntary hospital committees would turn to local journals. In that case, there was a risk of unqualified people being attracted. No resolution on this point was adopted. Mr. L. W. Mussell pointed out that pharmacists had no definite position in regard to A.R.P. work. He thought steps should be taken to put this right. The chairman reminded the meeting that the majority of pharmacists were employed in retail shops, and in a crisis it was considered by some that these were the best stations for them to occupy. Mr. J. L. Hirst said for pharmacists to go out searching for gas when there was important work for them to do at their shops would be entirely wrong. The question was asked whether

A.R.P. work could be included in the curriculum. Mr. J. L. Hirst said this was already so crowded that he failed to see how it could be fitted in. Mr. Mussell reiterated the opinion that an official niche should be created for pharmacists in the A.R.P. organisation. Mr. D. Riche said the chemist's business was regarded by the War Office as a reserve occupation. Mr. L. W. Mussell contended that the Pharmaceutical Society should consider what positions could be best filled by pharmacists in time of war. The Society seemed inclined to adopt a complacent attitude; this was regrettable. Mr. W. J. Tristram suggested a communication to the Pharmaceutical Society, requesting them to notify the Home Office that pharmacists were desirous of taking a responsible part in A.R.P. work. Mr. John Rae mentioned that the degree of Doctor of Philosophy had been conferred upon Mr. Frank Wokes, who was engaged on biological work in London, and on the proposition of Mr. J. L. Hirst it was decided to send Dr. Wokes a message of congratulation.

### London

WOMEN PHARMACISTS' DANCE.—The annual dance of the National Association of Women Pharmacists was held this year at the Metropole Hall, Northumberland Avenue, where Miss Blundell (president), Miss Hindes (the secretary), and other members of the committee received over 120 members and their friends. Official pharmacy was represented by two ex-presidents of the Pharmaceutical Society (Messrs. J. Marns and H. Skinner), two other members of Council (Mr. W. S. Howells and Mrs. J. K. Irvine), the secretary of the Society (Mr. H. N. Linstead), and the dean of the Society's College (Mr. H. Berry). The proceedings were directed by that experienced impresario Mr. Peter Irvine, and during the evening several prizes were secured by the fortunate.

PESSIMISTS IN PHARMACY ATTACKED.—Members of the North-East Metropolitan Branch of the National Pharmaceutical Union heard Mr. G. A. Mallinson (secretary of the Union) make a vigorous onslaught upon "The Pessimist in Pharmacy" on January 12. Mr. Mallinson said a wrong viewpoint was built up from the beginning—apprentices were frightened into pessimism by "do's and don'ts," allied to threats of dire results. That pharmacists received only a labourer's wage was not essentially true; what was true was that unpleasant jobs were often overpaid and pleasant jobs nearly always underpaid. He instanced cases where a live man with business ability had taken the opportunity offered to secure a turnover with substantial profits. The pharmacist who desired protection at all times and in all circumstances had in effect demonstrated that he was incapable of protecting himself. Four kinds of "pessimist-creators" were described:—The too-friendly pharmacist who supplied all sorts of friends, especially trade friends, with P.A.T.A. and Chemists' Friends goods; the no-confidence pharmacist who had no confidence in anything or anyone but himself; the opportunist who never supported anything; the parasite who took all and gave nothing. Mr. G. C. Geyman proposed and Mr. Scott seconded a vote of thanks to Mr. Mallinson, which was received with acclamation. Mr. P. Labraham was in the chair.

### Miscellaneous

MEDWAY BRANCH OF THE PHARMACEUTICAL SOCIETY.—The annual meeting was held on January 12, when Mr. L. R. Nicholson was elected *Chairman* and Mr. J. E. French *Vice-Chairman*. Afterwards Mr. R. H. Kemp (local organisation officer of the National Pharmaceutical Union), addressed the meeting on "The Chemists' Friends Scheme."

INQUESTS.—At Blackburn, on January 13, a "suicide" verdict was recorded at an inquiry into the circumstances attending the death of William H. Jenkins. According to medical evidence, death was due to drinking hydrocyanic acid.—At Bournemouth, on January 11, an inquest was held on Mr. E. C. Barker, M.P.S. (see p. 61). The inquiry was adjourned for an analysis to be made.

IN THE COURTS.—At West London County Court, on January 11, Mr. Duncan M. Dunno, M.P.S., sued Bush Stores Chemists Co., Ltd., Railway Approach, Shepherds Bush, claiming £5, a week's wages in lieu of notice, and 5s. 9d. balance of wages. Judgment was given for the amount claimed.—At Bolton, on January 13, Waller & Riley, Ltd., chemists, were fined £2 10s. in respect of the sale of sulphur ointment containing only 5.5 per cent. of sulphur and boric ointment containing 8.22 per cent. of boric acid. It was



stated that the ointment had been made by heating the fatty elements and the ointment had not been stirred until cold.

**MEMORANDUM TO CHIROPODISTS.**—A memorandum and circular issued to all practising chiropodists by the Joint Council of Chiropodists (comprising five London and provincial associations) draw attention to the conditions under which recognition is to be given to certain chiropodists by the British Medical Association (see *C. & D.*, November 26, 1938, p. 569), and suggest that these conditions will so curtail the activities of chiropodists that the public will be deprived of specialist remedial treatment of many serious foot ailments. The memorandum sets forth the aims of the Joint Council, which was formed in London in October 1938. Among these are: To promote unity; to obtain State recognition as accorded to the dental profession in 1921; to compile and issue a register of members for circulation to the medical profession, hospitals, and public bodies; to standardise and regulate teaching and examinations; to obviate the multiplicity of qualifications and to substitute one standard designation, "Licenciata in Surgical Chiropody" (L.S.Ch.).

**PANTOMIME.**—The Aspro Operatic and Dramatic Society gave a special performance of the pantomime "Cinderella" in the hall of the factory, Slough, on January 14, in aid of the Earl Baldwin Fund for Refugees. Approximately £80 will



SCENE FROM ASPRO PANTOMIME "CINDERELLA"

be given to the Fund as a result of the performance. The book, much of the music, and 200 costumes for the performance were the work of the members of the Society, who also painted all the scenery. A doll presented by Mr. C. P. Rees, Epsom, was auctioned by the chairman of the company (Mr. G. M. Garcia) and realised £10.

**INSTITUTE OF APPLIED PHARMACEUTICS.**—The council of the recently formed Institute of Applied Pharmaceutics met executives and representatives of "ethical" manufacturers in London on January 13. The chairman (Mr. J. Macvie Hill) gave a summary of the thirty-two years' existence of the St. Vincent Association (forerunner of the present Institute). He said the new Council represented heads of firms, executives and representatives, and that a consultative board consisting of medical and other professional men was in process of formation; also a committee of manufacturers. An attempt to improve the standard of representatives, by introducing a curriculum of study, with the ultimate granting of a diploma, was being made. Dr. F. W. Crossley-Holland, who then spoke on "The Institute as it Appears to Medical Men," said that owing to the mounting cost of successful interviews in relation to the total of calls made, several firms had eliminated personal calls from their propaganda. Establishing personal contact with the doctor formed, he said, the ideal means of propaganda where "ethical" products were concerned. This demanded ability on the part of the representative to discuss the matter in a knowledgeable manner. He believed that if there were an easy and certain means of enabling the doctor to differentiate between caller and caller, he would gladly receive the worthy, and equally gladly refuse to see the others. The meeting was then thrown open for discussion. There was a strong appeal for two distinct departments of the Institute, one for manufacturers and the other for individuals holding the diploma of the Institute.

## Irish Notes

### Olive Oil Prosecution

At Navan, on January 13, a local merchant was prosecuted for selling olive oil alleged to contain 25 per cent. of cottonseed oil. After evidence to this effect by Mrs. O'Kelly, public analyst, Mr. B. Fagan, public analyst for Dublin, said that the sample contained 2 to 3 per cent. of kapok oil. Mr. Chadwick, secretary of the Irish Oil & Cake Mills, Ltd., Drogheda, said his company much regretted trouble caused to a few wholesalers and also to retailers who had been prosecuted. A tank in the company's factory which formerly contained kapok oil was used for storing olive oil and was not thoroughly cleaned before the olive oil was put into it. He had no doubt that the oil which could have contaminated the olive oil supplied by his firm was kapok oil. The defendant in the case said he sold the oil as he received it from J. J. Haslett, Dundalk, who received it from the Irish Oil & Cake Mills, Ltd. The case was dismissed on the payment of costs.

### Miscellaneous

**ROTARY ADDRESS.**—"Fifty Years at Work" was the subject of an address given to the Dublin Rotary Club on January 9 by Sir Thomas Robinson (president, Pharmaceutical Society of Ireland).

**WHIST DRIVE ARRANGEMENTS.**—The Belfast ladies' pharmacy social committee met on January 9 at the invitation of Mrs. McGregor (chairman). The Mesdames Storey, Martin, McDowell, Maguire, Ph.C., Hogg, Ph.C., and the Misses Lavery, Ph.C., and Forrest, Ph.C., were present. Arrangements were made in connexion with the whist drive to be held on February 16 in aid of the Benevolent Fund.

**SHOPS ACT REPORT.**—The report of the committee set up in August, 1936, by the Northern Ireland Ministry of Home Affairs to inquire into the administration and working of the Shops Act, issued on January 19, contains the following recommendations affecting pharmacy:—That notwithstanding the compulsory closing of shops engaged in pharmacy on a weekly half-holiday, provision should be made to enable owners of such shops to admit and serve those who seek to purchase medicines, medical and surgical appliances, baby foods and feeding appliances; that pharmaceutical chemists, chemists and druggists, and registered druggists be allowed individually to choose the day on which they desire to observe the weekly half-holiday; and that on the occasion of severe epidemics power should be given to the Ministry of Home Affairs to make local or general orders providing for the relaxation of the compulsory half-holiday in the case of pharmaceutical chemists.

## Scottish Notes

### Glasgow

**CHEMISTS' FRIENDLY SOCIETY.**—To celebrate the opening of the new premises of the Chemists' Friendly Society at 195 Bath Street, Glasgow (*C. & D.*, January 7, p. 3), Mr. A. B. Gilmour, clerk to the National Health Insurance Drug Committee, Scotland, and president of the Society, entertained the directors and others on January 12 in the Beresford Hotel. The company included Mr. Thomas Guthrie, president of the Pharmaceutical Society; Mr. John H. Ramsay, chairman of the Glasgow and South-Western Scottish Branch; and Mr. John Weir, president of the Scottish Pharmaceutical Federation.

**BRANCH MEETING.**—The monthly meeting of the Glasgow and South-Western Scottish Branch of the Pharmaceutical Society was held in the Gordon restaurant, Glasgow, on January 11, Mr. J. H. Ramsay, Ph.C., president, in the chair. After referring to the death of Professor Barger the chairman drew attention to the leader in *THE CHEMIST AND DRUGGIST*, January 7 (p. 13) with reference to the fact that no pharmacist could keep open both as a chemist and druggist and also as owner of a drug store. Mr. McAdam, secretary, said that co-operative stores were selling all kinds of medicine through their grocery departments, and there should be a qualified chemist supervising these. Mr. Guthrie said that co-operative



stores wished to be allowed to carry on selling some medicines in their grocery shops, and their plea was that they should be allowed to do as other grocers did. Mr. McCrone asked if the co-operative societies wished to have sections 8, 9, and 10 of the Act repealed, Mr. Ramsay answering in the affirmative. Mr. Gemmell moved "that it is the opinion of this Branch that any attempt, from whatever source, to amend sections 8, 9, and 10 of the Poisons and Pharmacy Act, 1933, be resisted." It was unanimously decided to send the resolution to the Council. Mr. H. T. Thomas, Kelso, then read a paper on "The Practice of Bio-Chemical Analysis." Mr. Thomas said the diploma was issued for bio-chemical analysis, but, in his opinion, it should be called "chemical pathology." In the discussion Mr. Merry said that in a city all bio-chemical analysis could be done for a doctor for nothing in a hospital. He had taken the diploma and found it was of no financial value to him. Professor J. P. Todd thought that such work might be undertaken by a pharmacist where there was no hospital near at hand. Mr. W. Spence Culbert then gave a paper on "Pharmacy for the Pharmacist." In connexion with N.H.I. chemists had asked for an increase in the dispensing fee, and the refusal indicated that there were too many pharmacies. He suggested that only chemists who would give up all sales of patent medicines, toilet goods, photographic goods, etc., and concentrate on dispensing and the sale of drugs and appliances should be allowed to contract to dispense N.H.I. and public assistance prescriptions. The dispensing chemist would also be allowed to do private dispensing and sell his own packed goods and drugs. The licensing of such chemists would be in the hands of the Pharmaceutical Society in conjunction with the Government Department. A vote of thanks to the speakers was proposed by Professor Todd.

### Miscellaneous

**NEW SHOWROOM AND OFFICE.**—The Fenton Manufacturing Co., Ltd., powder puff manufacturers, 145 Farringdon Road, London, E.C.1, have opened a permanent showroom and office at 114 Union Street, Glasgow, C.1.

**TESTIMONIAL FUND.**—Those intending to subscribe to the testimonial to Mr. D. S. Rattray, Ph.C., are asked to send their donations to Mr. A. A. Meldrum, M.P.S., 1 Mount Street, Aberdeen, before January 31.

**PRESENTATION.**—At a meeting of the Banffshire Pharmaceutical Association, held in the Royal Hotel, Keith, on January 11, Mr. R. W. Garrow, Ph.C., was presented with a picnic luncheon case in recognition of his services as secretary of the Banffshire Pharmaceutical Committee for the last twenty-four years. In the absence of the chairman of the Committee, Mr. W. Findlay, Cullen, made the presentation, and referred to the conscientious and courteous manner in which Mr. Garrow had performed his duties.

**ASSOCIATION MEETING.**—At a meeting of the Paisley Chemists' Association on January 9, Mr. S. McConnell, Johnstone, addressed the meeting on the employment of young persons outside the pharmacy. He then explained the agreement made regarding the extension of the Chemists' Friends scheme to Scotland, and that Scotland would be represented on the council governing the extended scheme. He also referred to negotiations regarding terms for N.H.I. dispensing, and of the position regarding a company authorised to sell poisons. After a discussion, the meeting closed with a vote of thanks to Mr. McConnell and to Mr. Whiteford, chairman.

## Topical Reflections

By Xrayser

### A Valuable Series

I welcome the first article of a series on "Diseases and Their Treatment" (*C. & D.*, January 14, p. 41). Counter-prescribing is destined to continue in some form in response to a general demand, whatever the Legislature may see fit to enact; and counter-prescribing should be knowledgeable. The first paragraph of the article to which I refer furnishes a text on which to base my comment. We there learn that in acute bronchitis four types of mixture may be indicated—and indicated successively for the same patient. I am not suggesting that any pharmacist should take upon himself the responsibility of seeing such a case through; but every pharmacist should know in outline the probable course of the case, and be prepared to send his customer for medical advice at the right moment. Pharmacists who do no counter-prescribing will still be wise to read all that your medical expert has to say: it will at least enable them to compound with a better appreciation of the uses of different types of medicament. I recall to mind cases of fifty years ago in which apprentices were expected to function as prescribers in the absence of their employer, and another in which the proprietor of a pharmacy invariably called an assistant to attend to a customer needing anything like prescribing. Knowing, as he should at an early stage of his career, how easy it is to go wrong in diagnosis, the wise chemist in business will be constantly on his guard in this matter, and will bring all his diplomatic resources to bear on it.

### The Aberdeen Pharmaceutical Association

Your announcement of the forthcoming centenary celebration of the Aberdeen Pharmaceutical Association (p. 27) is of more than ordinary interest. I have never heard of any rival claimant to the honourable position of the oldest association of pharmacists in this country; and I hope to read at the appropriate time that the celebration has taken place with due *éclat*. Your paragraph sent me back to the article on the Association contributed by the late Mr. Dugan in 1932 (*C. & D.*, September 10, p. 286), an article charged with the dry humour of one of the most delightful pharmacists it has been my good fortune to meet. Mr. Dugan then told us that an earlier association, the Aberdeen Chemico-Pharmaceutical Society, had been traced back to 1828, but that it passed out of existence before the

formation of the present Association. The opening appeal for funds in 1839 included a sentence with a prophetic tone: "Anyone desirous of contributing more liberally will be entitled to the warmest thanks of the Society." "Desirous" and "entitled" in conjunction form a meiosis difficult to surpass, or even to equal. The list of books quoted for a somewhat later period is, I suppose, unique, ranging as it does from "The Pickwick Papers" to Macdonald's "Unspoken Sermons." I regret that my reading has never extended to the last-named work, but I have now noted it in my diary. Without attempting to pick any more plums out of this article, I commend it to those of your readers who have forgotten its contents. I trust that in the year 2039 the Association, like a certain proprietary whisky lately alluded to by a distinguished ecclesiastic, will be still going strong.

### Machiavelli and Pharmacists

The Wimbledon Branch of the National Pharmaceutical Union may well have "sat up" when Miss Sharples, by way of pointing a moral in her address on January 3 (p. 26), introduced the name of Machiavelli. To the three classes of mankind mentioned by that astute observer I may add a fourth, a class which he must have visualised even if he did not name it, the class of people who understand, with or without explanation—but never act. That class is, I fear, not unknown among us. A little more of the wisdom of the serpent will do us no harm so long as it remains unalloyed with serpentine guile. The statement in the address that "many of the [third-party-risk] claims . . . cast a reflection on pharmacists and could be avoided" can bear amplification. If I were asked to draw up a commercial creed, its first sentence would probably be: "I believe in a sound routine." One of the chief blessings of a sound routine is that it carries us through on days when for any reason we are not at our best. But routine in business is not everything. The unforeseen (with due acknowledgment to Machiavelli) will interpose itself from time to time when everything appears to be going smoothly; and it is at such moments that claims arise of the kind regarded by the National Pharmaceutical Union as avoidable. The more reason, therefore, for a disciplined alertness that uses routine to the full without relying on it exclusively.



# Proprietary Articles Trade Insurance Act Dispensing Association

## ENGLAND AND WALES

THE quarterly meeting of the P.A.T.A. council was held on January 12, the president (Mr. G. M. Garcia) in the chair. Arising out of a decision taken at the October meeting of the council that an endeavour should be made to secure as members of the Association all important non-P.A.T.A. dentifrice manufacturers, meetings between these manufacturers, representatives of the council and important retail distributing interests had been arranged. As a result the manufacturers concerned collectively intimated that they would make every endeavour to suppress price-cutting of their products and would cease supplying all known price-cutters or suppliers of price-cutters. They were all prepared to join the P.A.T.A. subject to certain conditions. One condition which the executive committee were unable to accept, and which they were satisfied would not be acceptable to the general body of retail members, was that co-operative societies should be permitted to allow dividend on the proprietary dentifrices of this group of manufacturers.

### TRADE MARKS ACT

It was reported that counsel's opinion had been obtained regarding the best method of utilising, for price-maintenance purposes, the provisions of the Trade Marks Act, 1938, which deal with the mutilation or obliteration, etc., of trade marks. The council endorsed a proposal to bring the recommended procedure to the notice of manufacturer members.

### PROPAGANDA

The council, having considered representations on the subject, were unanimously of opinion that it was desirable for the Association to institute and maintain an adequate system of propaganda within the retail trade, in order to make better known the advantages of standardised retail prices, the important nature of and benefits from the Association's work, and the necessity of a due measure of loyalty to P.A.T.A. principles and support for P.A.T.A. goods by retail members. The council authorised the executive committee to make the necessary arrangements for a campaign.

### PHARMACEUTICAL SOCIETY'S NEW BUILDING

In view of the close association existing between members of the Association and the Pharmaceutical Society, and in appreciation of the services rendered to pharmacy and the drug trade by the late Sir William Glyn-Jones, the council endorsed a recommendation of the executive committee that a donation of £4,000 should be made to the Fund. It was understood that this sum would be utilised to defray the cost of the council chamber in the Society's new building, and that the council chamber would be identified with the P.A.T.A. and constitute a memorial to the late Sir William Glyn-Jones.

### ELECTION OF OFFICERS

The council proceeded to elect the officers for 1939. In accordance with custom, the *President* for this year is nominated by the wholesale section, and Mr. Lindsay Barclay (Barclay & Sons, Ltd.) was proposed by Mr. S. Watson. The motion was seconded by Mr. P. F. Rowsell, supported by Mr. S. N. Pickard, and carried with acclamation (see p. 61). Mr. Barclay then took the chair, thanked the council for the honour conferred upon him, and moved a vote of thanks to the retiring president. The motion was supported by Messrs. F. J. Smith, H. H. Marshall, J. Milner and J. D. Bohn, who expressed the appreciation of their respective sections. Mr. Garcia returned thanks, referring to the ramifications of the price-cutting business and emphasising the necessity of manufacturers, wholesalers and retailers giving sincere and active co-operation to the P.A.T.A. The council then elected as *Vice-Presidents* Mr. J. D. Bohn (manufacturers' section), Mr. Harold Nixon (wholesale section) and Mr. H. H. Marshall (retail section). Mr. F. J. Smith was re-elected *Chairman*, wholesale section. Mr. A. T. Webb was re-elected *Treasurer*. The following were elected to the *Executive Committee*: Messrs. J. Godber, P. G. Hunt, N. Forster, F. J. Smith, W. S. Howells, T. Marns, P. F. Rowsell and E. Skues; with the president, immediate past-president, vice-president, treasurer and the chairman of the P.A.T.A. Trust Co., Ltd. (Mr. C. H. Ratcliffe) *ex officio*.

**Hull.**—At a recent meeting of the Insurance Committee the chairman referred to reports of the pharmaceutical service subcommittee, which, he said, showed that 50 per cent. of prescriptions were not being made up correctly by chemists under contract with the Committee. He based his observations on the figures given in the subcommittee's report, in which it was stated that out of seven tests made, five were found to be inaccurate. In two cases they had recommended that a sum of £1, and in the other three cases a sum of 10s., should be withheld from each chemist's remuneration. A member expressed the opinion that some of the cases were trivial, but the chairman did not agree; another member said that if the matter was so serious, they were not giving that impression by fining chemists 10s. each. It was a mere bagatelle to them. The chairman agreed that a 10s. fine was no use. If it went forth that such an alarming number of these prescriptions were wrong there would be a great outcry from the public.

[A letter from Mr. E. A. Brocklebank (a member of the National Pharmaceutical Union Executive), in which he protested against the report of the Insurance Committee's meeting which appeared in the "Hull Daily Mail," was published in a subsequent issue of the paper.]

**Portsmouth.**—There are now nearly 95,000 insured persons in Portsmouth entitled to medical benefit. The total prescription cost for the area in 1937 was £13,707.—The Insurance Committee at its last meeting reappointed Mr. F. H. Ruoff as its representative on the South-Eastern Joint Pricing Committee. The Committee also adopted a minute of the pharmaceutical service subcommittee in respect of a test prescription of mist. alb., which showed an excess of 21.7 per cent. of light carbonate of magnesia. The chemist's explanation had been that the error was caused by neglect to shake the mist. alb. on a previous occasion, although he was satisfied that it was properly shaken when the sample was divided. All previous tests taken from this chemist had turned out satisfactorily. The subcommittee suggested that no further action was necessary.

**Wolverhampton.**—The medical benefit subcommittee recently reported to the Insurance Committee that an approved society had complained about a medical certificate issued by an insurance practitioner, pointing out that it was difficult to decipher the cause of incapacity, which might be "influenza." About the same time the Pricing Bureau had complained about the writing on a prescription issued by the same doctor. On that prescription the chemist had supplied ung. methyl sal. co. fort, whereas it was believed that "garg. pot. chlor. c. phenol" was intended. The supervisor asked if the Committee could do anything in the matter of this doctor's illegible writing. The clerk interviewed the doctor and asked him to decipher the prescription. At first the doctor was unable to do so, but subsequently agreed that it was intended to be garg. pot. chlor. c. phenol. The Clerk then asked the doctor to decipher the cause of incapacity on the medical certificate. The doctor said it was intended to be pyorrhœa. The subcommittee reported that the seriousness of the position with regard to his prescriptions was pointed out to the doctor. He agreed that, as shown by his writing on his agreement with the committee, he was capable of writing in a much more legible manner. He promised that in future he would exercise more care with scripts and certificates. The Clerk was instructed to interview and warn the chemist concerned, and also to request the Pricing Bureau to watch future prescriptions issued by this doctor.

## Coming Events

### Tuesday, January 24

Guild of Public Pharmacists, 17 Bloomsbury Square, London, W.C.1, at 7.30 p.m. Dr. F. C. O. Valentine on "A Modern Clinical Laboratory."

West Middlesex Chemists' Association, Palladium Cinema, Ealing Broadway, W.5, at 8.45 p.m. Mr. S. J. Stearn on "Concerning Pharmacy."

### Thursday, January 26

Manchester Pharmaceutical Association, Victoria Hotel, Deansgate, at 8.30 p.m. Joint meeting with the Branch of the Pharmaceutical Society. Dr. A. Crawford on "Metal in Nutrition."



# Company News

P.C. means Private Company and R.O. Registered Office

**W. A. BELL (CHEMISTS), LTD. (P.C.).**—Capital £1,000. Objects: To acquire the business of a chemist carried on by Wm. A. Bell at 88 Clarendon Road, Southsea.

**HILTON & MOSS, LTD. (P.C.).**—Capital £2,000. Objects: To acquire the business now carried on by N. R. Hilton, as N. R. Hilton, M.P.S. (late D. A. Evans), chemist, at 24 East Street, Bridport.

**BRETTS CHEMISTS, LTD. (P.C.).**—Capital £1,000. Objects: To carry on the business of wholesale and retail chemists and druggists, etc. The first directors are not named. R.O.: 199 Piccadilly, W.1.

**AVA PHARMACY, LTD. (P.C.).**—Registered in Belfast.—Capital £400. Objects: To carry on the business of chemists and druggists, etc. Robert J. Cooper, 305 Ormeau Road, Belfast, director.

**R. A. MORRIS & CO. (READING), LTD. (P.C.).**—Capital £1,000. Objects: To acquire the business of a drug store carried on by F. L. Aburrow, L. R. Goffe, K. L. Goffe and C. W. Lake at 37 King's Road, Reading.

**SURREY CASH STORES, LTD. (P.C.).**—Capital £500. Objects: To carry on the business of chemists, dealers in canine and feline medicines and foods, etc. Alan A. Casson, 185 Nutfield Road, Merstham, Surrey, director.

**J. W. SIMPSON (PRODUCTS), LTD. (P.C.).**—Capital £100,000. Objects: To acquire the business carried on by J. W. Simpson (Chemist), Ltd. The first directors are to be appointed. Solicitors: Herbert Smith & Co., 62 London Wall, E.C.2.

**SHEPHERD'S HOME PRODUCTS, LTD. (P.C.).**—Capital £1,000. Objects: To carry on the business of manufacturing chemists, druggists, etc. Margaret Weaire, 38 Mountgrove Road, N.5, director. R.O.: Grove Chemical Works, Wetherell Road, E.9.

**R. W. MCKNIGHT & CO., LTD. (N.I. 1,316) (P.C.).**—Registered in Belfast.—Capital £500. Objects: To carry on the business of chemists and druggists, etc. Joseph B. McKnight, 7 Innisfayle Road, Belfast, director. R.O.: 2-4 Antrim Road, Belfast.

**JACKSON & CHAMBERS (CHEMISTS), LTD. (P.C.).**—Capital £500. Objects: To carry on the business of chemists, druggists, etc. Mrs. Marjorie D. B. Jackson, 13 Pages Lane, Great Barr, Staffs, director. R.O.: Queslett Road, Great Barr, Birmingham.

**MEDICAL SUPPLIES (NEWCASTLE-UPON-TYNE), LTD. (P.C.).**—Capital £1,000. Objects: To carry on the business of chemists, drug-merchants, etc. The first directors are to be appointed. Solicitor: John H. Sinton, 4 Queen Square, Saville Row, Newcastle-on-Tyne.

**A. LABIN & CO., LTD. (P.C.).**—Capital £1,500. Objects: To carry on the business of manufacturers of and dealers in manicure sets, brushes, combs, razors, blades, instruments, creams, powders, soaps and toilet requisites, etc. Abraham A. Labin, 5 White Street, Finsbury, E.C.2, director.

**THER-MATICE BEDSHEET MANUFACTURING CO., LTD. (P.C.).**—Capital £1,000. Objects: To carry on the business of manufacturers of and dealers in medical and surgical bedsheets and anatomical, orthopaedic and surgical appliances of all kinds, etc. Alfred Wilkinson, 208 Dowson Road, Hyde, Ches., director. R.O.: Sorton Street, Manchester, 1.

**VERMINSURANCE, LTD. (P.C.).**—Capital £12,500. Objects: To acquire from James Millward & Co., Ltd., the benefit of an agreement dated December 16, 1938, with A. L. Arnold, and to carry on the business of wholesale and retail chemists, druggists, dealers in chemical products, vermicides, insecticides, disinfectants, etc. John S. G. W. Heathcote (chairman) and Reginald K. Gibson, both of Imperial House, Regent Street, W.1, directors. Solicitors: Woolfe & Woolfe, 13A Old Burlington Street, W.1.

**INTERNATIONAL AUTOMENTH, LTD. (P.C.).**—Capital £1,000. Objects: To acquire all existing licences for the manufacture of automenth dentifrice issued by Otto Mihaly; to grant new licences for the manufacture of the same; and to carry on the business of manufacturers of and dealers in automenth dentifrice, soaps, perfumery, cosmetics, proprietary and patent medicines, etc. The first directors are to be appointed. Solicitor: Albert M. Oppenheimer, 31 Queen Victoria Street, E.C.4.

**THE INSTITUTE OF APPLIED PHARMACEUTICS, LTD.**—(Company limited by guarantee without share capital). Objects: To acquire all or part of the property and liabilities of the St. Vincent Association; to promote the study in relation to the manufacture, propaganda and distribution of medical, surgical, chemical and pharmaceutical supplies, chemicals and products manufactured and sold in connexion with those and allied industries, etc. The management is vested in a Council, the first members of which are:—J. Macvie Hill (Crookes Laboratories, Park Royal, N.W.10); Richard R. Coates (Coates & Cooper, Ltd., 94 Clerkenwell Road, E.C.1); George L. J. Cooper (Coates & Cooper, Ltd., 94 Clerkenwell Road, E.C.1); John F. Rogers (Petrolagar Laboratories, Ltd., Blagdon Road, N.16); Francis E. Corringham, F.C.S., M.P.S. (Reckitt & Colman, Hull); Kenneth J. Golds (William R. Warner & Co., Ltd., Power Road, Chiswick, W.4); John F. Murphy (12 Carlisle Road, N.W.9). R.O.: 4 Copthall Chambers, E.C.2.

**LANETA, LTD., 323 City Road, London, E.C.1.**—In the Chancery Division, on January 16, Mr. Justice Simonds made an order for the compulsory winding up of this company on the petition of Robinson & Sons, Ltd., Wheat Bridge Mills, Chesterfield, box manufacturers. Counsel for petitioners said they were judgment creditors for £112 17s. 5d. Execution had been levied and returned unsatisfied. There were no notices of opposition or support. Mr. Justice Simonds: The paid-up capital of the company is two shillings. There will be the usual compulsory order.

**A. MILLAR & CO., LTD., DUBLIN.**—The directors' report and accounts for the financial year ended October 31, 1938, shows that after making provision for salaries, wages, repairs, bad debts, directors' fees, etc., the net profit, including the balance of £6,785 12s. 7d. brought forward from last year, amounts to £12,172 10s. 7d. An interim dividend at the rate of 5 per cent. per annum on the preference shares was paid last June, amounting (less income tax) to £1,162 10s., leaving a balance of £11,010 0s. 7d. A final dividend on the preference shares at the rate of 5 per cent. (less income tax)—£1,162 10s.—was paid in December last. There remains a sum of £9,847 10s. 7d. out of which the directors recommend the payment of a dividend on the ordinary shares of 4 per cent. per annum (less income tax), £3,100, leaving a balance carried forward of £6,747 10s. 7d. The retiring directors, Mr. E. W. Millar and Mr. R. N. Millar, were re-elected. At the forty-fourth annual general meeting the chairman, Mr. H. J. Millar, referred to the death of Mr. W. de Courcy Millar, a director of the company since 1909. The shareholders passed a resolution of sympathy.

## Voluntary Liquidation

**May's Appliances, Ltd., 5 Warwick Street, London, W.1,** chiropody appliance suppliers. The statutory meeting of the creditors was held, recently, at the offices of Messrs. Alfred Laban, Son & Co., 25-27 Oxford Street, London, W., when a statement of affairs was submitted showing liabilities of £1,066 11s. 5d., all due to unsecured creditors. The assets totalled £309 8s. 11d., from which had to be deducted £74 8s. 6d. for preferential claims. The net assets, therefore, were £235 0s. 5d., or a deficiency as regards the creditors of £831 11s. The issued capital of the company was £500, and so far as the contributors were concerned there was a deficiency of £1,331 11s. A resolution was passed in favour of the voluntary liquidation of the company being continued, with Mr. A. Laban as liquidator.



# Pharmaceutical Society of Ireland

## Council Meeting

THE monthly meeting of the Council of the Pharmaceutical Society of Ireland was held on January 10, Sir Thomas Robinson, the president, in the chair. Other members of the Council present were Messrs. P. C. Cahill, F. J. Fitzpatrick, P. A. Brady, J. Gleeson, B. P. Hickey, Dr. J. A. Mitchell, J. A. O'Rourke, T. C. Scott, and J. K. Whelehan. Apologies for inability to attend were received from Mr. D. W. P. Boyd, Mr. P. J. Fielding, Mr. P. Brooke-Kelly, Mr. M. J. Parkes, Mr. J. Duggan and Mr. M. J. Kieran.

At the outset of the proceedings the president said he would like to refer to the death, which took place on the previous day, of Mrs. Mary A. Wells, widow of the late William F. Wells, who was for so many years a member of the Council, and mother-in-law of Mr. David Warwick. He moved that the Council express its deep sympathy with Mr. Warwick. The motion was passed in silence, all members standing.

Dr. MITCHELL said he learned that Mr. Fielding was progressing well.

THE REGISTRAR (Mr. J. J. Kerr) said that on January 11 Mr. Fielding would be fifty years a pharmacist, as he qualified on January 11, 1889.

It was agreed to send the following telegram of congratulations: "P. J. Fielding, Knockrea Park, Cork. Heartiest congratulations from your colleagues on the Council on attaining your jubilee as a pharmacist. Ad multos annos.—Sir Thomas Robinson, President; J. J. Kerr, Registrar."

### GREETINGS RECEIVED

Greetings were received from His Excellency the Nuncio Apostolic, the president of the Pharmaceutical Society of Great Britain, the president and Council of the Pharmaceutical Society of Northern Ireland, the Pharmacy Board of Tasmania, the president and Council of the Pharmaceutical Society of Western Australia, the College of Pharmacy, Melbourne, and Dr. Vallet.

### B.P. ADDENDUM NOW OFFICIAL

THE REGISTRAR reported to the Council that the resolution from the Medical Registration Council making the addendum to the Pharmacopœia official had been published in "Iris Oifigiúil," and the addendum was now official throughout the country.

### BENEVOLENT FUND DEPUTATION

The Council then received the following deputation from the Benevolent Fund Dance Committee: Messrs. G. C. O'Neill (chairman), C. A. Collis and Brendan Smith (secretaries) and F. J. Roche. Mr. Smith, addressing the Council, said he had much pleasure in handing over a bank draft for £119 12s. 5d., the proceeds of the dance. (Hear, hear.) That sum had been lodged to the credit of the Benevolent Fund of the Society by the honorary treasurer, Miss Fogarty, who was unable to be present that day. It would not have been possible to hand over such a big sum to the Benevolent Fund had it not been for the generosity of chemists and their friends in the drug trade who subscribed towards the expenses of the dance, and in this way enabled the Committee to claim exemption from entertainment tax. It was calculated that the amount of tax they would have had to pay would come to about £40, but this was obviated due to the generosity of those who subscribed towards the dance expenses. In addition to those who subscribed in this way the Committee owed a deep debt of gratitude to the president (Sir Thomas Robinson), the vice-president (Mr. P. C. Cahill) and other friends for presenting spot prizes for the dance. They were also indebted to Mr. Kerr and his assistant.

They had made provisional bookings for a dance next year, and the next Committee could choose whatever date they thought suitable. He himself would not be able to help, but he hoped new blood would come forward to make each event a success. (Applause.) Mr. Collis said two members of their Committee who deserved special mention were Mr. Brendan O'Sullivan and Mr. Frank Roche. Mr. O'Sullivan handled the entertainment tax matter very efficiently, and Mr. Roche made a very capable M.C. He hoped they would have Mr. O'Neill's help for another couple of years as chairman.

THE PRESIDENT said that the deputation were tremendously welcome there that day, not only on account of the very fine subscription for which Mr. Fitzpatrick would thank them later,

but also for the spirit of friendship they had spread amongst chemists and their families by reason of this social event. It was one of the things badly needed for the past twenty years, and they had made a great success of it. On behalf of the Society he thanked the Dance Committee very sincerely for what they had achieved in aid of the Benevolent Fund, and now called on the treasurer to say a few words.

Mr. FITZPATRICK said he did not intend to say anything, but to leave the matter to the president. He was told this year's dance was most enjoyable, and that it was worth the price of admission alone to see the president and the Lord Mayor doing the Lambeth Walk. (Laughter.) The Committee, like himself, realised the need for building up the Benevolent Fund. He sincerely hoped this Committee would carry on for many years.

Mr. KERR said perhaps the most eloquent thanks the Committee could have was to hear a letter written by one of the beneficiaries of the fund for a grant paid out this Christmas. This beneficiary wrote: "I hasten to send you and the Pharmaceutical Council my heartfelt thanks for your wonderful generosity this morning in sending me a cheque for £5. Words really fail me to convey the gratitude that fills my heart. You will please express these grateful, sincere sentiments to the Council."

THE PRESIDENT: We feel very grateful to you all. You worked very hard, and it would be invidious to select any one of you, but I would like to mention your chairman, Mr. O'Neill. The man who fills the chair has a heavy share of responsibility. I wish you all a prosperous New Year.

### OTHER MATTERS

In connexion with the petition received for mitigation of the fines imposed on Wm. J. Finn, at Mitchelstown District Court, on October 25, 1938, the Department of Justice wrote: "I am directed by the Minister for Justice to inform you that after a full consideration of all the circumstances of the above cases it has been decided that no mitigation can be granted of the penalties imposed by the Court."

The reports of the Law, House, Schools, Certificates and Declarations Committees were all submitted and approved. The report of the Certificates and Declarations Committee stated that one candidate entered for the forthcoming Registered Druggist examination, and twenty-nine candidates for the Pharmaceutical Licence examination.

Mrs. A. Farrell, *née* Ahern, L.P.S.I., wrote submitting marriage certificate and requesting change of name in the Register. The application was granted.

Preliminary registration was granted to the following, who submitted Matriculation certificates: Misses M. Keelaghan, K. C. MacAuliffe and M. N. O'Donovan.

The following changes of address were notified:—

Mr. P. McArdle, M.P.S.I., from Rampart, Jenkinstown, Dundalk, co. Louth, to 1 Castle Street, Sligo; Mr. E. R. Owen, M.P.S.I., from The Mall, Youghal, co. Cork, to 91 North Main Street, Youghal; Mr. M. Smith, M.P.S.I., from 151 Moibhi Road, Glasnevin, Dublin, to 6 Upper Drumcondra Road, Dublin; Mrs. A. Farrell, L.P.S.I., *née* Ahern, from Monagea, Newcastle West, co. Limerick, to The Medical Hall, Ballyjamesduff; Mr. J. J. Connolly, L.P.S.I., from Westport, co. Mayo, to 29 Dolphin Road, Crumlin, Dublin; Mr. J. Mackle, L.P.S.I., from c/o Mrs. Joyce, Galway Road, Tuam, to 34 Thomas Street, Limerick; Mr. P. Mallon, L.P.S.I., from 82 Hill Street, Newry, to 60 Hill Street, Newry; Mr. J. B. Mansfield, Esq., from 28 Clontarf Road, Dublin, to 1 Fairview Corner, Fairview, Dublin; Mr. C. H. Williams, L.P.S.I., from c/o Premier Drug Stores, Ltd., Bundoran, to 41 Leinster Street, N., Phibsboro, Dublin.

THE REGISTRAR reported on the death of Mr. W. F. Knight, M.P.S.I.

The following were elected to membership of the Society: Messrs. J. P. Cashman, G. Chambers, M. D. McHale, J. Harnett and J. Vaughan.

The following were nominated for membership: Messrs. P. McArdle, 1 Castle Street, Sligo; E. O'Callaghan, 2 Parliament Street, Cork; and T. Wrixon, Medical Hall, Collooney, co. Sligo.

# Poisoning Statistics for 1937

THE Registrar-General's annual statistical review for England and Wales for 1937 has recently been issued, so far as Part I of the Tables (Medical: Stationery Office, 6s.) is concerned. The following table shows the general statistics side by side with those for the year 1936:—

	1936	1937
Population (estimated) ... ..	40,839,000	41,031,000
Birth rate (crude) ... ..	14.8 per 1,000	14.9 per 1,000
Deaths ... ..	495,764	509,574
Death rate (crude) ... ..	12.1 per 1,000	12.4 per 1,000
Poison deaths (corrected figures)	Accident ... 92 Suicide ... 558	Accident ... 91 Suicide ... 578
Ratio of poison deaths to total deaths ...	Total 650 1 in 760	Total 669 1 in 762

The figures given in the report have been modified, in accordance with our usual practice, by the deletion of deaths occasioned by coal gas, insect stings, poisonous plants, the administration of anæsthetics, and other causes of little importance to our readers. To illustrate the proportion of accidental deaths to total poison deaths in past years, part of a table previously given is reprinted:—

1856 ..	Accidental poisonings 317	Total poisonings 457
1886 ..	" " 228	" " 507
1913 ..	" " 211	" " 723
1921 ..	" " 122	" " 479
1924 ..	" " 97	" " 501
1930 ..	" " 134	" " 849
1934 ..	" " 85	" " 832
1935 ..	" " 87	" " 734
1936 ..	" " 92	" " 650

The following are relevant details extracted from the tables in the review, together with those of the two preceding years:—

Name of Poison	1935			1936			1937		
	Negligence and Accident	Suicide		Negligence and Accident	Suicide		Negligence and Accident	Suicide	
A.B.C. liniment...	—	2	—	7	—	—	—	—	—
Acetic acid ... ..	—	1	2	1	2	2	2	1	2
Aconite ... ..	—	—	—	—	—	—	—	—	—
Aconite and belladonna	1	—	—	—	—	4	—	—	—
Adalin ... ..	—	—	—	—	—	1	—	—	—
Allonal ... ..	2	1	1	2	1	1	—	—	—
Ammonia ... ..	4	32	6	31	3	18	—	—	—
Antimony chloride ...	—	—	—	—	—	—	—	—	—
Arsenic and preparations	3	7	1	10	—	6	—	—	—
Aspirin ... ..	7	36	8	17	10	41	—	—	—
Atophan ... ..	—	—	—	—	—	—	—	—	—
Barbitone and salts ...	8	16	3	7	6	15	—	—	—
Barium chloride ... ..	—	—	—	1	1	—	—	—	—
Belladonna (and atropine)	—	1	1	1	—	2	—	—	—
Benzol ... ..	—	—	—	—	—	—	—	—	—
Bleaching fluid ... ..	—	—	—	—	—	—	—	—	—
Bromidia ... ..	—	—	—	—	—	—	—	—	—
Calcium sulphide ... ..	—	—	—	—	—	—	—	—	—
Camphor (and camphd. oil)	—	—	1	—	2	2	—	—	—
Carbolic acid and preps.	3	41	2	33	5	41	—	—	—
Caustic soda ... ..	—	—	—	—	—	—	—	—	—
Chloral ... ..	2	1	2	1	3	3	—	—	—
Chlorbutanol ... ..	—	—	—	—	—	—	—	—	—
Chlorodyne ... ..	1	1	2	—	—	2	—	—	—
Chloroform ... ..	—	2	1	1	—	2	—	—	—
Cinchophen ... ..	—	—	1	—	—	—	—	—	—
Coal-tar derivatives ...	—	3	—	2	—	2	—	—	—
Cocaine ... ..	—	1	—	1	—	—	—	—	—
Codeine ... ..	—	—	—	1	—	—	—	—	—
Colocynth and hyoscyamus	1	—	—	—	—	—	—	—	—
Copper sulphate ... ..	—	1	—	1	—	—	—	—	—
Cresols and preparations	—	—	—	—	2	6	—	—	—
Cresosote ... ..	—	—	—	—	—	4	—	—	—
Cresylic acid ... ..	—	4	—	4	—	—	—	—	—
Dial ... ..	2	—	3	2	1	—	—	—	—
Digitalis and preparations	1	—	1	—	—	1	—	—	—
Elsanol ... ..	—	1	—	—	—	—	—	—	—
Ferrous sulphate ... ..	—	—	—	—	1	—	—	—	—
Heberal sodium ... ..	—	—	1	—	—	—	—	—	—
Heroin ... ..	—	—	—	—	—	—	—	—	—
Hydrochloric acid ... ..	—	62	5	55	3	42	—	—	—
Hydrocyanic acid ... ..	—	24	—	16	—	21	—	—	—
Hydrofluoric acid ... ..	—	—	—	1	—	—	—	—	—
Hyoscine ... ..	—	—	1	—	—	—	—	—	—
Insulin ... ..	—	—	1	—	1	2	—	—	—
Iodine and preparations	—	4	1	2	—	1	—	—	—
Izal ... ..	3	—	5	—	—	11	—	—	—

Name of Poison	1935			1936			1937		
	Negligence and Accident	Suicide		Negligence and Accident	Suicide		Negligence and Accident	Suicide	
Jeyes' fluid ... ..	—	3	—	3	—	4	—	—	—
Killgerm ... ..	—	—	—	2	—	—	—	—	—
Luminal ... ..	11	4	7	9	4	6	—	—	—
Lysol ... ..	2	230	1	201	8	230	—	—	—
Lysol and adrenaline ...	—	—	—	—	—	—	—	—	—
Medinal ... ..	6	7	2	9	—	—	—	—	—
Mercurous iodide ... ..	—	—	—	—	—	—	—	—	—
Mercuric chloride ... ..	1	5	1	2	—	4	—	—	—
Mercury biniodide ... ..	—	—	—	1	—	—	—	—	—
Methyl alcohol ... ..	1	—	—	2	—	—	—	—	—
Methyl salicylate and preps.	3	2	2	2	4	2	—	—	—
Methylated spirits ... ..	—	—	—	—	2	1	—	—	—
Naphthalene ... ..	—	—	1	—	—	—	—	—	—
Nembutal ... ..	1	—	—	—	—	1	—	—	—
Nicotine ... ..	—	16	1	8	1	5	—	—	—
Nitric acid ... ..	—	2	—	2	1	—	—	—	—
Nitro-hydrochloric acid ...	—	—	—	—	—	—	—	—	—
Nitrobenzene ... ..	—	—	1	—	—	2	—	—	—
Novalgin ... ..	1	—	1	—	—	—	—	—	—
Opium, laudanum, and morph.	3	9	2	8	1	7	—	—	—
Oxalic acid ... ..	—	26	—	23	—	9	—	—	—
Paraldehyde ... ..	3	—	3	2	2	—	—	—	—
Phanodorm ... ..	—	—	—	—	—	1	—	—	—
Phenacetin ... ..	—	—	1	—	—	—	—	—	—
Phenobarbitone ... ..	—	—	—	1	2	2	—	—	—
Phosphorus ... ..	1	4	2	3	1	3	—	—	—
Potash, caustic ... ..	—	—	1	—	—	—	—	—	—
Potassium chromates ... ..	—	4	—	—	—	—	—	—	—
Potassium cyanide ... ..	2	44	1	37	1	38	—	—	—
Potassium oxalates ... ..	—	1	—	—	—	2	—	—	—
Potassium permanganate ...	—	—	—	—	—	—	—	—	—
Pyramidon ... ..	2	—	1	—	—	—	—	—	—
Quadroneox ... ..	—	1	—	—	—	—	—	—	—
Quinine ... ..	1	—	2	—	—	—	—	—	—
Salicylic acid ... ..	2	2	—	2	—	—	—	—	—
Sedormid ... ..	—	—	—	1	—	1	—	—	—
Sloan's liniment ... ..	—	—	—	1	2	—	—	—	—
Soap liniment (meth.) ...	1	—	—	—	—	—	—	—	—
Soda, caustic ... ..	2	—	2	—	—	—	—	—	—
Sodium arsenate ... ..	1	—	—	—	—	—	—	—	—
Sodium barbitone ... ..	—	—	—	—	—	—	—	—	—
Sodium cyanide ... ..	—	—	—	5	—	2	—	—	—
Sodium fluoride ... ..	—	—	—	—	—	1	—	—	—
Somnifaine ... ..	—	—	1	—	—	—	—	—	—
Soneryl ... ..	—	1	1	1	—	—	—	—	—
Strophanthus ... ..	—	—	—	—	—	—	—	—	—
Strychnine (and nux vom.)	1	10	5	11	3	6	—	—	—
Sulphuric acid ... ..	1	8	1	6	—	5	—	—	—
Trinitrotoluene ... ..	—	—	—	—	—	—	—	—	—
Turpentine and mixtures ...	—	—	—	—	—	—	—	—	—
Zinc chloride ... ..	—	1	—	—	—	1	—	—	—
Kind not stated ... ..	4	25	1	10	—	9	—	—	—

Expressed as a ratio, total poisonings exceeded accidental poisonings in 1913 by about 3.4 to 1; in 1924 by 5.2 to 1; in 1930 by 6.3 to 1; in 1935 by 8.4 to 1. The figures for the subsequent two years have not sustained the last-mentioned figure, being in 1936, 7 to 1, and in 1937, 7.3 to 1, there being a considerable drop in the number of suicidal poisonings. The number of deaths from lysol poisoning is still higher than that for any other substance shown in the columns of suicides, and although there has been a gradual decrease in the lysol suicides from 1933 to 1936, there has been an increase of twenty-nine in these during 1937. The total number of suicides by poisons as a whole during 1936 were the lowest since 1925, but in 1937 there was an increase of twenty. One of the most interesting points that can be seen from the table is the total number of deaths from aspirin poisoning. The number of deaths from this substance has steadily increased during recent years, as can be seen from the following data: In 1918 (accidental), 1; 1925 (accidental), 1; 1927 (accidental), 3, (suicides), 2; 1929 (accidental), 5, (suicides), 6; 1930 (accidental), 8, (suicides) 12; 1934 (accidental) 10, (suicides), 11; 1935 (accidental), 7, (suicides), 36; 1937 (accidental), 10, (suicides), 41. These figures bear out the prediction made in the C. & D. in 1936 that with the restriction of certain scheduled hypnotics an increase in the number of suicides from aspirin was not unlikely. Among the more familiar poisonous substances showing variation are arsenic, the total figure for which is the lowest since 1931; the figure for carbolic acid suicides, with slight fluctuation, keeps approximately the same as in the past few years; hydrochloric acid shows the lowest figure for suicides since 1920, while the figures for accidental poisonings remain fairly constant.



# Mechanised Pharmacy

Abstract of an address given recently by Mr. L. Moreton Parry (a member of the Council) to the Norwich Branch of the Pharmaceutical Society

IN view of the changes which had taken place in political and social thought in this country since the Great War, Mr. Parry asked, "Is it any wonder that pharmacy—weak in numbers and poor in capital—should be tossed about among the changes taking place?" The stores and companies had grown and prospered for years and in themselves might have proved better friends than enemies, if pharmacy had been capable of absorbing the commercial lessons which they openly taught. For years chemists had been too stubborn to learn, and when the majority opened their eyes, the great companies had "dug in." In 1911, for the first time, the companies, the Pharmaceutical Society, the local associations and the rank and file of pharmacy had stood together and thus secured privileges under the National Health Insurance scheme. Experience had proved the advantages of complying with conditions of service which were frequently regarded as irksome, but which were generally agreed as being essential for the protection and advantage of the pharmacist and the public. This step in "mechanisation" was amongst the first to affect directly the mass of practising pharmacists. It had been the speaker's ambition from the outset to try to secure adequate payment for the chemist for this work, and discounting was now abolished. Whether any of the credit for this was due to the disturbance resulting from his action at the Council table last year mattered little; it was a fact that, following shortly upon representations made by the National Pharmaceutical Union and, he believed, supported for the first time by the Society's Council, the Government had removed an objectionable, unfair and almost dishonest condition from the contract of service. Were chemists to stop there and forget their rights and grievances for five years? With some reluctance the N.P.U. had agreed to reconsider the matter in 1940, and he was sure the time had come to press for the rights of pharmacists and to use every weapon at their command.

## Changes Due to Pharmacopœia

Mr. Parry said he had long considered that the introduction of the 1914 Pharmacopœia had done more damage to the individuality of the practical pharmacist than almost anything else. It was called the "wholesalers' Pharmacopœia" because the quantities of both solids and liquids given in it were adapted to the wholesale laboratory. The customary English weights and measures were left out. If the Government had then decided to abolish the pounds, pints and yards for good, he would have had nothing to say, but it did appear a bit theatrical and by no means heroic to claim that chemists were showing how much in advance of other traders they were by adopting the decimal system. This had nearly always proved expensive, because many people took to buying ready-made such galenicals as they had previously manufactured themselves. The glide downhill was, said the speaker, becoming an avalanche. Stock pills, machine-made and variously coated, had replaced the home-made. Tablets, ready-made cachets, suppositories, ampoules, etc., had become as frequent on prescriptions as on the counters. The increased number of vaccines, sera and other forms of hypodermic treatments, materials for chemotherapy, x-ray diagnosis, electro-therapy, actino-therapy, vitamins, hormones, etc., had become so enormous as to make it impossible for any single human brain to keep abreast of them.

## Complexes

The larger retail corporations were now also large manufacturers, and some of them were highly organised. The larger manufacturers and wholesalers were advancing rapidly. They had installed remarkable equipment, and were controlled by experts skilled in the various arts associated with pharmacy. The pharmacy schools and colleges were slowly advancing, probably too slowly to meet the demands of the changing times. The best amongst them were unsatisfactory, but the fault was not theirs. Neither was the Society to blame, except in the sense of a "Council complex" developed as the result of constant failure to receive proper recognition, protection or remuneration for the pharmacist, and a "membership complex" manifested in two ways: one a form of blind opposition to everything the Council did, whether right or wrong, the

other a hopeless indifference or apathy, probably the result of expecting too much. These complexes were the despair of every reformer, and would break every new councillor were it not that the bulk of pharmacists were loyal men and women, gifted with sound sense and a capacity to understand and evaluate the difficulties. Even the voters at Council elections had become mechanised. There were now two or three thousand pharmacists who voted blindly at every election. Were it not for these people there would be few "year after year" candidates and more encouragement for better men to come forward.

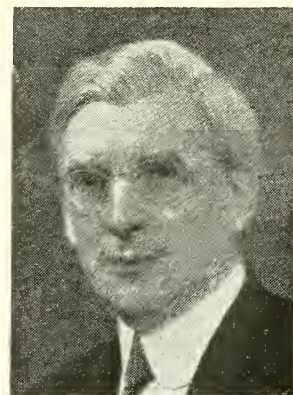
There was an organised attempt to mechanise pharmacy by propaganda. Only recently he had been astonished by the high-sounding title of a proposed new organisation; the "Institute of Applied Pharmaceutics" sounded very academic and savoured of "uplift," research and university training. The sponsors, however, were merely a group of commercial travellers who believed they could better impress doctors with sales talk disguised as scientific jargon, and thus induce the prescribing of more expensive proprietaries at the expense of the chemist and the over-burdened Drug Fund. On November 30, 1938, doctors from 170 parts of the country had met at the British Medical Association headquarters to pat each other on the back on the success of the new public medical service. He had no information as to how much of this work had been side-tracked from pharmacists, but as the Government had already protected insured persons from medical dispensing there should be no real difficulty in protecting the dependants.

The co-operative menace was becoming serious, though chemists themselves were largely to blame for much of the new development. The object of a clause in the 1933 Act was to prevent chemists opening drug stores under the same name in quarters and within limitations where the chemist's name had a trading value. There was no real excuse to extend this prevention further. The tyranny of these people was shown by the attempts being made by the co-operative societies to induce the Government to amend or modify the 1933 Pharmacy Act to suit their organisation and convenience.

## Organisation in Pharmacy

It had been said that pharmacy as a calling is better organised than most. They had the Society, the N.P.U. and the Proprietary Articles Trade Association well organised. Company pharmacy was organised. Hospital and public pharmacists were organised. So were the wholesalers and manufacturers. Generally all these, both national and local, could agree on a common policy for the common benefit. They were protected by definite privileges which had never been fully explored or exploited, and yet they could not agree upon a standard selling price for a bottle of dispensed medicine or a batch of pills. What was the use of a profession being organised if it could not protect its members from exploitation?

It had been Mr. Parry's opinion during many years that the wrong men were sometimes appointed to act on behalf of the Council in negotiations. An organisation committee should consist of men, if obtainable, with experience of organisation which had produced practical results. The committee of inquiry has been sitting for some time, and so far this expensive and cumbersome mountain had only produced the *questionnaire* mouse. Much valuable information was being gathered and classified by the Society's inspectors, and the service of these was proving valuable in many ways. It was becoming a habit to report offenders, and the consideration of cases by the law committee seemed to grow more serious as the months passed.



MR. L. MORETON PARRY.



# Trade Notes

**NO CHANGE.**—Pepsodent, Ltd., Park Royal, London, N.W.10, are advertising Pepsodent tooth paste, both sizes of which it is stated are unchanged to chemists and customers.

**EVENING-IN-PARIS.**—Bourjois, Ltd., has arranged for a weekly broadcast every Sunday throughout 1939 from Radio Normandy at 6.15 to 6.30. Further announcements are promised.

**SOLAZZI LIQUORICE PELLETS.**—Solazzi liquorice is now available in pellets packed in 1-oz. transparent cellulose tissue packets. Supplies may be obtained through the usual wholesale channels.

**KODAK PRINTING PAPERS.**—Kodak, Ltd., Kingsway, London, W.C.2, have published a brochure giving details as to sizes and prices of Kodak bromide, Bromesko, Velox and other printing papers. Copies of this may be obtained on application.

**ELECTRO-MEDICAL LAMP.**—Hinders, Ltd., 178/192 Estcourt Road, London, S.W.6, advertise Radiaray electro-medical lamp for infra-red and radiant heat treatment. Generous terms are available, full details of which may be obtained from the makers.

**BIOLOGICAL PRODUCTS.**—The biological products and allied substances issued by the Usines Chimiques des Laboratoires Francais are listed in this issue. Prices, samples and literature may be obtained from the sole selling agents in the United Kingdom:—Biddle, Sawyer & Co., Ltd. (incorporating the Old Strand Chemical & Drug Co.), Empire House, St. Martin-le-Grand, London, E.C.4.

**MILTON IN THE MAKING.**—A descriptive account of how Milton hypochlorite antiseptic is made appears elsewhere in this issue. Chemists are invited to write to Department C.D., Milton Proprietary, Ltd., John Milton House, London, N.7, to arrange a visit to the works, which are open to inspection on certain dates by appointment. The various indications for Milton are also described in this issue.

**SOLCO SPIRIT.**—Solvent Products, Ltd., Bush House, London, W.C.2, in an advertisement in this issue, direct attention to the fact that many thousands of gallons of industrial methylated spirit are used annually in making sheep dips. All types of methylated spirit are obtainable from Messrs. Solvent Products, including industrial, perfumery, mineralised methylated spirits, as well as rectified spirit.

**ENSIGN CATALOGUE, 1939.**—Ensign, Ltd., 88-89 High Holborn, London, W.C.1, have issued their general photographic catalogue for 1939. This book is bound in stiff board, consists of 284 pages as against 256 last year, and a thumb-index is provided for easy reference. The chief camera introduction is the Ensign Fulvue, and other new cameras are certain models of the Selfix 320 and 420 and the pocket E.20 No. 2. Price alterations have been made in some of the existing models.

**PHOTOGRAPHIC SOLUTIONS.**—Johnson & Sons, Manufacturing Chemists, Ltd., Hendon Way, Hendon, London, N.W.4, are about to market Meritol-Metol developer, in solution for developing miniature films, and an acid hardening fixing solution. These solutions will be issued in 20-oz. stopper bottles for the convenience of miniaturists who prefer to save the time for weighing or dissolving chemicals. A leaflet is enclosed with the developer having time and temperature development tables for all the well-known miniature films. The acid hardening fixing solution is concentrated so that 80 to 100 oz. of solution may be made from the 20-oz. bottle issued.

**GLAXO LABORATORIES JOURNAL.**—The 1939 issue, which is now being distributed to chemists throughout the country, presents two articles contributed by pharmacists in retail business. One discusses the Chemists' Friends scheme and the other relates to a retail chemist's experience of the Glaxo food product, Farex. New counter cards for Farex, which have just been made available, stress four important classes of customer for this product. They are a handy size for shelf, window or counter display, measuring 5 in. by 4 in. They are printed in three colours—brown, green and black. An announcement is made that a reduction in the price of the 1,000-tablet size of Fersolate tablets will be made on January 16.

**BRAND'S ESSENCE.**—Free display material in colour is offered in this issue by Brand & Co., Ltd., Mayfair Works, Vauxhall, London, S.W.8. Brand's essence is now in seasonal demand, which is assisted by intensive advertising. Chemists are asked to fill up and post the coupon which appears elsewhere in this issue.

**DISPLAY STAND FOR BELTS.**—R. H. Heward & Co., Crown Road Works, Twickenham, are advertising one of their attractive display stands which consists of a light oak unvarnished pedestal base stand with delicate pink satin surround for carrying the belt. This stand has been illustrated in our advertisement pages.

**CHAS. ZIMMERMANN & Co., LTD.,** 9 and 10 St. Mary-at-Hill, London, E.C.3, inform us that this business will be carried on under the control of Mr. W. A. Beckley and Mr. C. M. Bell, directors, who have been actively connected with the company for many years.

**GLYMIEL JELLY BONUS OFFER.**—Sangers, Ltd., 258 Euston Road, London, N.W.1, wholesale agents for Glymiel jelly, made by Osborne, Bauer & Cheesemen, Ltd., announce an offer of bonus terms until February 1. There are five assortments of bonus parcels to choose from. Glymiel jelly is issued in tubs of three sizes and decorative jars.

**BOB MARTIN'S HOUSE ORGAN.**—The January issue of the Bob Martin publication, "The Lead," contains as an inset a history of the company, with the title "The Progress of an Industry." The brochure describes this business from its inception to the present day. It is profusely illustrated and gives a capital idea of the flourishing condition of the company.

**NURITABS SLIMMING TABLETS.**—These products are described as the safe reducing tablets with a tonic vitamin B action. They are available in two sizes, one to cover ten days' and the other three weeks' treatment respectively. Full details may be obtained on application, and display material and literature is available free. The sole distributors are:—Axa, Ltd., 17-21 Emerald Street, Theobalds Road, London, W.C.1.

**DISPLAY BONUS.**—A display bonus of Anne French cleansing milk available until January 31 is announced in this issue. Sales are assisted by increased radio and Press advertising. This product is manufactured by International Chemical Co., Ltd., Braydon Road, London, N.16, and other products of the company may be included. An attractive counter display stand to hold three bottles of Anne French cleansing milk will be sent with each order.

**THROAT LOZENGES.**—Sharp & Dohme, Ltd., 76-78 City Road, London, E.C.1, are directing attention in this issue to S.T.37 "sucrets" lozenges, which are stated to have a soothing effect on irritated throats. These lozenges are displayed in an attractive counter stand. They are packed in neat metal boxes convenient to carry, and each batch of sucrets is standardised for germicidal activity by bacteriological tests. Bonus terms are obtainable on application.

**COD-LIVER OIL BONUS OFFER.**—The British Cod Liver Oil Producers (Hull), Ltd., St. Andrew's Dock, Hull, announce a bonus offer open between January 18 and February 25 on minimum orders of three dozen bottles of "seven seas" cod-liver oil. Supplies may be obtained from the usual wholesalers, and full details are given in our advertisement pages. An interesting competition with which this product is linked will be opened on January 26 by the "Daily Mail." This consists of four special baby competitions, and the prize money in each one is doubled if mothers buy "seven seas" cod-liver oil before entering.

**PERFUMES FOR BEAUTY PRODUCTS.**—Standard Synthetics, Ltd., 76 Glenthams Road, Barnes, London, S.W.13, issue an attractive range of fancy bouquet perfumes made from high-class material for beauty preparations of all kinds, face powders and creams. The formulas are the results of technical experience, and the satisfactory results achieved are well exemplified in the attractive and lasting odours of the products. In addition to these there is a large series of floral odours, including carnation, honeysuckle, jasmijn, lilac, trefle and wallflower. An American company is now functioning in New York. Full information concerning these perfumes may be obtained on application.



## Personalities

MR. LINDSAY BARCLAY, who was elected president of the Proprietary Articles Trade Association at the meeting of Council on January 12, belongs



MR. L. BARCLAY

to a family and to a wholesale business associated with pharmacy and the drug trade since 1770. Mr. Barclay is joint managing director of Barclay & Sons, Ltd., 95 Farringdon Street, London, E.C.4, and is a son of the late Mr. George R. Barclay, who was so closely associated with the late Sir William Glyn-Jones in the formation and building up of the P.A.T.A. After his father's retirement from the Council of the Proprietary Articles Trade Association in 1926, Mr. Lindsay Barclay represented his company on the wholesale section of the Council, and later was elected vice-president of the Association and a member of the Executive Committee. Mr.

Barclay was educated at the City of London School, and, on leaving, entered the family business with which he has been connected for over thirty years. During the war he held a commission in the 2/15th London Regiment, after passing through the Inns of Court Officers' Training Corps.

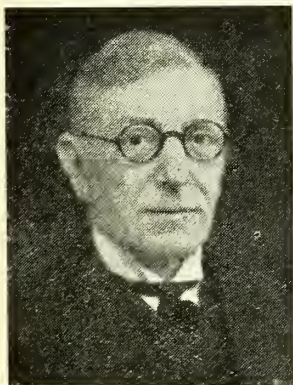
MR. J. R. A. EVANS, a director, Wilson & Mansfield, Ltd., is leaving shortly for America. He will visit New York and Florida.

MR. T. T. WALTON has been elected president of the Birkenhead and Wirral Branch of the United Commercial Travellers' Association, in succession to Captain Alan Graham, M.P.

W. BRO. T. S. WIDDOWSON (senior representative of Wright, Layman & Umney, Ltd., manufacturing chemists, London, S.E.), P. M. Galen Lodge, No. 2394, and a founder of the Galen Lodge No. 5275, Brighton, has been invested with London Rank.

MR. F. ROSS SERGEANT, retired chemist and druggist, and MRS. SERGEANT, Nottingham, recently celebrated their golden wedding. On the same day Mr. Sergeant also celebrated his seventy-seventh birthday. He was connected with pharmacy locally for over fifty years, and his business is now carried on by his son, Mr. Kenneth R. Sergeant, M.P.S.

MR. G. A. TURNER, who was recently elected chairman of the newly constituted City and County of Worcester Pharmacists' Association, served his apprenticeship in Belfast with the late J. C. C. Payne, commencing in 1896. On completion of his apprenticeship, he went to a branch shop at Hollywood, and from there went as assistant to Mr. Hardy (Davidson & Hardy, Ltd.), Belfast. About this time the South African War created a demand for dispensers in the Royal Army Medical Corps, and Mr. Turner volunteered, but his active service came to an abrupt end with a hip injury which has continued to give trouble. On returning from South Africa, he secured the qualification of the Pharmaceutical Society of Ireland, afterwards crossing to London to study at Muter's College, qualifying as a chemist



MR. G. A. TURNER

and druggist in 1903. He then went for a time to Cooper, Sons & Co., Ltd., Sloane Street, London, S.W.1. In 1906 he joined his uncle, the late Mr. C. W. Turner (principal of Anderson & Virgo's old-established dispensing business) at Worcester. When the latter retired in 1918, he took over the business

## Deaths

ALLEN.—At Aldershot, on January 10, Mr. Herbert Llewellyn Allen, M.P.S. (Allen & Lloyd, Ltd., chemists), aged seventy.

BARKER.—At Bournemouth, on January 9, Mr. Eric Courtney Barker, M.P.S., 125 Old Christchurch Road, aged forty-nine (see p. 52). Mr. Barker, who was a Yorkshireman, served his apprenticeship with G. E. Bridge & Co., Ltd., Old Christchurch Road, and after qualifying was for some years on the representative staff of Parke, Davis & Co., London. He returned to Bournemouth at the end of the war, and became a director of the business in which he was apprenticed.

BELL.—At the Crossways, South Hill Road, Bromley, Kent, on January 12, Mr. Charles Bell, chairman of Chas. Zimmermann & Co., Ltd., 9 and 10 St. Mary-at-Hill, London, E.C.3, aged sixty-nine. The funeral, which was private, took place on Saturday, January 14, at Streatham Park Crematorium, London, S.W., and the interment at Bickley Cemetery, Kent. Mr. Bell was a son of Mr. August Zimmermann, who had resided in this country for many years as a naturalised subject. In 1887 he joined his father in the business of A. & M. Zimmermann, and became a partner in the firm in 1895. In 1902 he commenced trading on his own account under the name of Charles Zimmermann & Co. With the development of the business and the addition of new departments handling essential oils, pharmaceutical specialties, etc., it was formed into a limited liability company in 1913, with Mr. Bell as chairman, a position he held up to the time of his death. Mr. Bell was a member of two City Guilds, the Painter-Stainers' Company and the Farriers' Company. During his business career of over fifty years he was responsible for building up and directing a merchandising business with connexions with practically every country in the world. In London business circles he was a well-known and highly respected personality. His genial and kindly manner gained for him the highest regard of his many friends. He was a regular attendant on 'Change in pre-War days, and may rightly and with due respect be referred to as one of the "Old Brigade" who did much business at the Royal Exchange. His passing will be much regretted by all who knew him and particularly by those who came into daily contact with him.



MR. CHARLES BELL

BURNS.—On January 18, after an operation, Mr. Andrew Bell Burns, M.P.S., 25 Yardley Wood Road, Moseley, Birmingham. Mr. Burns, who was manager of the pharmacy of Hedges (Chemists), Ltd., at 10-12 Dale End, Birmingham, for the past twenty-five years, passed the Pharmaceutical Society's Minor examination in 1901.

JONES.—Suddenly, at a Leeds nursing home, on January 12, Mr. Arthur Hugh Jones, 234 Town Street, Bramley, Leeds, aged sixty-eight. Mr. Jones was apprenticed with Mr. C. Hanson, Ph.C., Liverpool, and had represented Ayrton, Saunders & Co., Ltd., in the Yorkshire area for forty-eight years. He had been chairman and for many years was treasurer of the Leeds Branch of the United Kingdom Commercial Travellers' Association. The interment took place at St. Peter's Church, Bramley, where Mr. Jones had been churchwarden for many years, and the service was attended by a large congregation, including a number of chemists and representatives of the associations with which Mr. Jones was identified.

MASON.—At "Aberdour," Alwoodley Lane, Leeds, on January 12, Mr. Bernard Taylor Mason, son of the late Mr. W. B. Mason, a former director of Taylor's Drug Co., Ltd., aged fifty-eight.

MONK-JONES.—At Teignmouth, on January 10, Mr. John Monk-Jones, Ph.C. Mr. Monk-Jones passed the Minor examination of the Pharmaceutical Society in 1893, and the Major in the following year. He had carried on business in Regent Street, Teignmouth, for over forty years.





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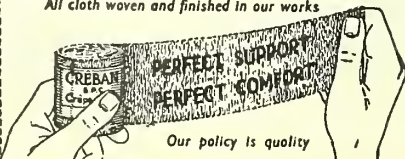
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# Information Department

## INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

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M/12 Celery Cream for rheumatism	L/51 Mulso veterinary ampoules
R/17 Forest Breeze setting lotion	B/10 Parsina powder
S/10 Lacfer	H/10 Quivie nail polishing cloth



# THE CHEMIST AND DRUGGIST

VOL. CXXX

January 21, 1939

NO. 3076

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## No Concessions to Co-ops

It would be unfortunate if enthusiasm, not to say anxiety, for the Pharmaceutical Society's new building were allowed to eclipse the very serious situation in which pharmacy may find itself if the co-operative societies succeed in their attempts to have amendments made to the Pharmacy and Poisons Act, 1933—a matter which has already been referred to briefly in these columns (*C. & D.*, January 7, p. 13).

The present position, briefly, is that in each set of premises owned by an authorised seller where any business comprising the retail sale of drugs is carried on, the business must be controlled (so far as the retail sale of drugs is concerned) either by the pharmacist himself or some other registered pharmacist. This matter was recently decided in the law case of *Coombes v. Hygienic Stores, Ltd.*, the important point being that any business where the retail sale of drugs is concerned must be managed by a pharmacist even when poisons are not sold on the premises. This decision precluded anyone, whether a pharmacist or a company pharmacy, from owning a pharmacy and at the same time conducting a drug store under unqualified management. It is common knowledge that before the 1933 Act, some pharmacists and company chemists did conduct branch shops under unqualified management. This restriction was taken to mean a step towards confining the sale of drugs to those qualified by examination to handle them. All pharmaceutical bodies are apparently against any attempt to render this ruling void or to change it so that co-operative societies who are already authorised persons within the meaning of the Act shall be able to sell drugs in associated shops where no pharmacist is employed. Every effort must be made to prevent the co-operative movement from obtaining special privileges in regard to the sale of drugs. If the law is amended, then it must be altered to cover authorised persons whether they be individual pharmacists, company chemists or co-operative societies employing a pharmacist as an authorised seller of poisons.

But, it would be a mistake on the part of the representatives of pharmacy to agree to any alteration in the law as it stands at present, for pharmacy would be in a worse position now than before the Act, inasmuch as the present restrictions in regard to the sale of drugs would remain while drug stores for the sale of non-poisonous drugs could so far as authorised sellers are concerned be freely opened. The political weight of the co-operative societies must be respected; nevertheless, pharmacists should not only in their own interests, but in the interests of the craft, be ready to support official efforts against any amendments and be unanimous in their decision that such amendments "shall not pass."

The restriction placed upon the opening of drug stores by an authorised person is or should be looked upon as the first step in the restriction of drugs to the qualified chemist on whose behalf the claim should be made and insisted upon that the sale of all drugs and compounds of drugs in the British Pharmacopœia and the British Pharmaceutical Codex should be restricted to him—not in the sense that he should have a monopoly, but because he has undergone training and studied to fit himself for the handling of drugs. No other retailer is competent in the same degree.

## International Trade in 1938

THE final figures of our seaboard trade in merchandise of all descriptions for 1938 have turned out better than seemed likely at the half-year. Details are given on p. 71 of this issue. In the early months of the year the totals declined, but from about July onwards imports continued more or less steady while exports showed a slight recovery. The total international trade was approximately £173,000,000 less than in 1937, but was roughly £103,000,000 more than the 1936 figures. The loss for the year, as compared with 1937, is divided by a decrease in imports of about £108,700,000 and a fall in exports of about £64,300,000. The debit trade balance was thus reduced by approximately £44,400,000, and amounted to £387,946,112. During the twelve months there was, according to official statistics, a drop of 6.7 per cent. in wholesale prices; this would account for about half the amount of the value decline in our trade for the year. There was a decline of nearly £17,000,000 in imports of cereals and flour, but this was balanced by increases in other foodstuffs, chiefly from Empire countries. Practically all groups of raw materials and goods wholly or partly manufactured showed a decline in imports. Home industries which fared badly in exports include cotton goods, £18,800,000 decline, woollen goods, £8,700,000, other textiles, £5,400,000, and iron and steel industry, £6,770,000. The serious loss in general textiles is due almost entirely to sharp declines in shipments to China, India and certain African markets. Some of this valuable business has been taken by Japan. The group in which an outstanding increase in exports is recorded is "Machinery," the total being up by £8,166,000, an indication, unfortunately, that new manufacturing industries are being opened up in what have hitherto been markets for our goods. The only other important increase in exports was in "Vehicles" to the extent of £4,716,000; this is explained by the fact that it includes aircraft.

The aggregates for the year in the "Chemicals, etc." group for 1938, show a slight fall in the value of imports, which, however, continue to exceed £13,000,000. As in former years, Germany with £3,978,919 and the United



States of America with £2,636,701 were by far the chief suppliers. The landings from these two countries represent slightly more than 50 per cent. of our total imports of this class of goods. Canada was the chief Empire source, her shipments totalling £586,897. Imports from France rose by over £225,000, while arrivals from Spain dropped by £44,000 and shipments from Japan were down by about £26,500. Exports of British-made "Chemicals, etc." during 1938 show a decline in value of £2,611,470, compared with the 1937 figures: all but £370,600 being due to losses in shipments to foreign countries. Since 1935 our shipments to Empire markets have increased by about £2,000,000, while our exports to foreign destinations have been steadily decreasing. The loss in business in foreign markets is due largely to declines in shipments to Eastern countries. While it may appear to be satisfactory that Empire purchases represent rather more than three-fifths of our total shipments of chemicals, the volume and value could be increased substantially if a preference, other things being equal, was given to our goods. A comprehensive range of British-made pharmaceutical, industrial and technical chemicals, pharmaceutical specialities, analytical reagents and research chemicals, photographic chemicals and aromatic synthetics, and isolates of unsurpassed and standardised quality are now available at competitive prices, and we appeal to all Empire buyers and consumers to support the British manufacturers.

### A Square Deal

THE welfare of the four great railway undertakings of the country is a matter of first importance, commercially and nationally. Their efficiency is closely linked with their financial soundness. Recently, from one cause and another, the revenue returns of all the companies has persistently declined, and to a somewhat alarming extent. This unhappy state of affairs may be due to road transport competition and partly to a general contraction in the movements of merchandise. The companies, according to their campaign for a "square deal," suggest the continual fall in their receipts is largely due to the fact that their operations as trading concerns are hide-bound by out-of-date statutory regulations, which, on the one hand, limit their freedom to meet competition and, on the other, detract from their providing an efficient and economical service to industry and the public generally. They therefore are now asking to be permitted to throw overboard the old statutory conditions they have had to conform to as public utility undertakings. The gist of their proposals, which are now receiving preliminary consideration, is that they should be allowed to impose "reasonable" instead of statutory charges for the transport of merchandise. If given this freedom to meet modern conditions and increasing competition it is indicated that any trading interests dissatisfied with a "reasonable" rate would have the right of appeal to the Railway Rates Tribunal. From experience, many traders will doubt the usefulness of this provision for appeal against what may be considered harsh terms, and there may be some danger in allowing monopoly concerns unrestricted rights in their charges and conditions.

The railway companies, however, are intent on recovering their revenues at least to former levels, and outside all other considerations they will only do this by attracting more business. To-day, they have by no means the monopoly of the country as common carriers they had only ten years ago, and the competition will intensify rather than diminish. Unless their charges and conditions of carriage are not only reasonable but keenly competitive, it will not be possible for industry to patronise them to the fullest extent. If the cancellation of old and restrictive conditions on their operations will assist them to attract more business by means of cheaper rates, there is something to be said for their claim for a "square deal." It would, it seems to us, be unwise of the companies if they attempt to exploit this freedom of action they are asking for by cutting rates where they were aware of competition and increasing charges where they still hold a monopoly. In acceding to the railways' request the traders should on their part also be assured of a square deal.

### The Doctor's Council

FROM time to time the General Medical Council comes into prominence in cases where its autocratic control seems unduly severe. Medical practitioners themselves grumble, if they do not groan, under the yoke of the G.M.C., and it is of interest to note that the Medical Practitioners' Union have issued a memorandum of the constitutions and functions of the council. Incidentally, it is suggested that a new body be created so that control may be exercised over the discipline of medical practitioners as the State would require. Copies of this memorandum have been sent to the Prime Minister, the Lord Chancellor, the Minister of Health and members of Parliament. The average age of the General Medical Council is stated to be nearly sixty-eight, the oldest member being eighty-three and the youngest thirty-nine. The memorandum goes on to state that it is impossible for these elderly gentlemen really to understand the conditions under which the general practitioner of to-day has to work. The Council had two primary functions: the supervision of medical education and the maintenance of discipline. It was composed largely of teachers of medical schools, some of whom were not practising at all, while others were in specialised practices. They were thus out of direct touch with the lives and problems of general practitioners who constitute the bulk of the profession in this country. The recommendation is made that there should be transferred to the new body all powers of discipline at present possessed by the General Medical Council and the Ministry of Health under the National Health Insurance Acts, and from any decisions of this Union there should be right of appeal. The views of this Medical Union in regard to the constitution of the General Medical Council should interest pharmacists who are satisfied to be represented by the same councillors year after year on the Council of the Pharmaceutical Society.

### Poisons List Amendments

On the opposite page we publish addenda to *The Chemist & Druggist* "Poisons Guide," which were rendered necessary by the Poisons List (Amendment) Order, 1938, and the Poisons (Amendment) Rules, 1938, which effected changes in regard to the sale of poisons in Great Britain. This additional information is issued so that the C. & D. "Poisons Guide" may be brought completely up-to-date and so remain the most comprehensive and accurate guide to the sale of poisons issued to the trade. It will be noted that the addenda contains not only additions to the Extended List of poisons as well as exemptions and relaxations, but items in the Glossary are altered. The C. & D. "Poisons Guide" next edition will be issued with these amendments together with an index for ready reference. Orders for the complete Guide, price 4s. 6d., may be sent to the Publisher, *The Chemist & Druggist*, 28 Essex Street, Strand, London, W.C.2.

### New Books

Smith, W. A., F.C.W.A. *Stock Records*. 8½×5½. Pp. 72. 2s. 6d. Moore's Modern Methods, Ltd., 12 Saint Bride Street, London, E.C.4. [The object of this manual is to present a few concise suggestions on the keeping of stock records. Certain articles describe methods of interest to manufacturers and wholesalers, and there is one which is specially intended for retail trades. Many rulings are illustrated, and the intention is that readers should adopt one or other of the forms to meet their requirements.]

Thorpe, J. F., and Whiteley, M. A. *Thorpe's Dictionary of Applied Chemistry*. 9½×6. Pp. 711. 63s. Longmans, Green & Co., Ltd., 39 Paternoster Row, London, E.C.4. [Volume II of the fourth edition of this work carries the dictionary from BI (Black Ash) to Chemical Analysis. The authors in the foreword mention that the general scheme outlined in the preface to Volume I has been followed in this volume (C. & D., June 12, 1937, p. 678). In answering the comment made by reviewers in relation to the amount of space given to organic chemistry, it is pointed out that it is the space occupied by organic formulas which makes the articles so bulky. Attempt has been made in this volume to reduce the bulk without detriment to the articles. The definition of the words "applied chemistry" is considered and it is shown that the meaning of the word "applied" has undergone some change since the first edition of the dictionary was published.]



# Addenda to the C. & D. Poisons Guide

in force on and after January 1, 1939

THE Poisons List (Amendment) Order, 1938 (S.R. & O., No. 1547), and the Poisons (Amendment) Rules, 1938 (S.R. & O., No. 1548), effect the following changes in regard to the restrictions on the sale of poisons in Great Britain.

## ADDITIONS TO THE EXTENDED LIST OF POISONS

"Benzedrine." (S.I.) (4) (Sch. 7 (1))  
(BETA-AMINOISOPROPYLBENZENE SULPHATE)  
(Ex. A in inhalers if absorbed in inert solid material)  
(Made-up internal medicines subject to Sch. 7 (1) cautionary notice.)

Beta-aminopropylbenzene and beta-aminopropylbenzene; their salts and N-alkyl derivatives and their salts. (S.I.) (4) (Sch. 7 (1))  
(Ex. A in inhalers if absorbed in inert solid material)

(v. "Benzedrine," Isomyn)

"Colsulanyde." (S.I.) (R only) (2)  
(Preps. containing PARA-AMINO-BENZENESULPHONAMIDE)

"Dagenan." (S.I.) (R only) (2)  
(2- (PARA-AMINO-BENZENESULPHONAMIDO) PYRIDINE)

(v. "M. & B. 693," 2-Sulphanilyl-aminopyridine)

Isomyn. (S.I.) (4) (Sch. 7 (1))  
(BETA-AMINOISOPROPYLBENZENE SULPHATE)

"M. & B. 125." (S.I.) (R only) (2)  
(BENZYLAMINO-BENZENESULPHONAMIDE)

(v. "Proseptasine")

"M. & B. 693." (S.I.) (R only) (2)  
(2- (PARA-AMINO-BENZENESULPHONAMIDO) PYRIDINE)

(v. "Dagenan," 2-Sulphanilyl-aminopyridine)

P.A.B.S. (S.I.) (R only) (2)  
(PARA-AMINO-BENZENESULPHONAMIDE)

Para-aminobenzenesulphonamide; its salts; derivatives of para-aminobenzenesulphonamide having one or both of the hydrogen atoms of the para-amino group substituted by other radicals; their salts. (S.I.) (R only) (2)

Sulphanilamide is the name used in medicine for the parent substance  
PARA-AMINO-BENZENESULPHONAMIDE

(v. "Colsulanyde," P.A.B.S., "Prontosil Album," "Prontylin," "Streptocide," Sulphonamide-P)

Derivatives of para-aminobenzenesulphonamide with one hydrogen atom of the para-amino group substituted by other radicals include—

Benzyl derivative  
(v. "M. & B. 125," "Proseptasine")  
Benzenesulphon-dimethylamide derivative  
(v. "Uleron")

Phenylpropyl- $\alpha$ : $\gamma$ -di-sodium-di-sulphonate derivative  
(v. "Soluseptasine")

Derivatives of para-aminobenzenesulphonamide with both hydrogen atoms of the para-amino group substituted by other radicals include:—

4'-Sulphamido-2: 4-diaminoazobenzene hydrochloride  
(v. "Prontosil Rubrum," Septoson)

6-Carboxy-2: 4-diamino-4'-sulphamido-azobenzene  
(v. "Rubiazol")

Di-sodium salt of 4'-sulphamidophenylazo-1-hydroxy-7-acetylamino-naphthalene-3: 6-disulphonic acid  
(v. "Prontosil S," "Prontosil Soluble," "Rubiazol Injectable")

"Prontosil Album." (S.I.) (R only) (2)  
(PARA-AMINO-BENZENESULPHONAMIDE)

"Prontosil Rubrum." (S.I.) (R only) (2)  
(4'-SULPHAMIDO-2: 4-DIAMINO-AZOBENZENE HYDROCHLORIDE)

"Prontosil Soluble," "Prontosil S." (S.I.) (R only) (2)

(DI-SODIUM SALT OF 4'-SULPHAMIDOPHENYL-AZO-1-HYDROXY-7-ACETYLAMINO-NAPHTHALENE-3: 6-DISULPHONIC ACID)

"Prontylin." (S.I.) (R only) (2)  
(PARA-AMINO-BENZENESULPHONAMIDE)

"Proseptasine." (S.I.) (R only) (2)  
(BENZYLAMINO-BENZENESULPHONAMIDE)

(v. "M. & B. 125")

"Rubiazol." (S.I.) (R only) (2)  
(6-CARBOXY-2: 4-DIAMINO-4'-SULPHAMIDO-AZOBENZENE)

"Rubiazol Injectable." (S.I.) (R only) (2)  
(Ampoules containing 5 per cent. solution w/v of the Di-Sodium Salt of 4'-Sulphamidophenylazo-1-Hydroxy-7-Acetylamino-Naphthalene-3: 6-Disulphonic Acid)

Septoson. (S.I.) (R only) (2)  
(4'-SULPHAMIDO-2: 4-DIAMINO-AZOBENZENE HYDROCHLORIDE)

(v. "Prontosil Rubrum")

"Soluseptasine." (S.I.) (R only) (2)  
(PHENYLPROPYLAMINO-BENZENESULPHONAMIDO- $\alpha$ : $\gamma$ -DI-SODIUM-DI-SULPHONATE)

"Streptocide." (S.I.) (R only) (2)  
(PARA-AMINO-BENZENESULPHONAMIDE)

Sulphonamide-P. (S.I.) (R only) (2)  
(PARA-AMINO-BENZENESULPHONAMIDE)

Sulphanilamide (Sulphanilamide) (S.I.) (R only) (2)

(PARA-AMINO-BENZENESULPHONAMIDE)

Sulphanilyl-aminopyridine. (S.I.) (R only) (2)  
(2- (PARA-AMINO-BENZENESULPHONAMIDO) PYRIDINE)

(v. "Dagenan," "M. & B. 693")

"Uleron." (S.I.) (R only) (2)  
(PARA-AMINO-BENZENESULPHON-4'-BENZENESULPHON-DIMETHYLAMIDE)

## EXEMPTIONS AND RELAXATIONS

Dinitroresol (s). (S.I.) (R only) (2)  
(Ex. A. in preps. not used for human ailments.)

Insulin (Solution) and insulin tablets. (P.I.) (13). (Sch. 7 (1))  
(Entries in Poisons Guide on p. 11 are unaffected as inclusion in the Sixth Schedule merely legalises prior labelling provisions.)

Nitrobenzene. (P.II.) (8)  
(Ointments for the treatment of animals added to the Fifth Schedule, i.e., listed sellers may sell the poison in this form.)

Nux vomica. (S.I.) (4)  
(Added to the Sixth Schedule; preparations may be labelled with proportion of STRYCHNINE only.)

Opium. (S.I.) (D.D.) (1)  
(Added to the Sixth Schedule. Poison Rules 17 and 18 now legalise labelling opium preps. with proportion of MORPHINE only, i.e., content of other poisonous alkaloids may be ignored.)

Oxalates, metallic. (P.II.) (8)  
(Photographic materials added to the Fifth Schedule, so that supply by listed sellers is no longer restricted to solutions.)

ALTERATIONS in the Poison Rules concern signed orders (Rule 7) and name of poison (Rule 17), statement of proportion of poison (Rule 18 and the Sixth Schedule), and poison bottle use (Rule 22).

POISON RULE 7 (4) now provides that where the seller is reasonably satisfied that the poison is required for the purpose of medical, dental, or veterinary treatment:—

(a) Such of the provisions of Rule 7 as require the purchaser to state his trade, business or profession and the seller to be satisfied with respect thereto shall not apply in the case of a sale to a hospital, infirmary, dispensary or clinic.

(b) Such of the provisions of Rule 7 as require the purchaser to state the purpose for which the poison is required shall not apply in the case of a sale of the poison (not being a Dangerous Drug) to a duly qualified medical practitioner, registered dentist or registered veterinary surgeon or to a hospital, infirmary, dispensary or clinic.

POISON RULE 17 (1) now provides that the name of the poison for the purposes of paragraph (c) (i) of Section 18 of the Pharmacy and Poisons Act, 1933, and of paragraph (3) (a) of Rule 26 shall be:—

(a) Where the term in the Poisons List describes the poison specifically,

(i) Either the said term,

(ii) Or, if the poison is the subject of a monograph in the British Pharmacopœia or the British Pharmaceutical Codex, one of the names or synonyms or abbreviated names set out at the head of the monograph;

(b) Where the said term describes a group of poisons and not the poison specifically,

(i) One of the names or synonyms or abbreviated names at the head of the monograph relating thereto in the British Pharmacopœia or the British Pharmaceutical Codex; and  
(ii) In any other case, the accepted scientific name or the name descriptive of the true nature and origin of the poison.

POISON RULE 17 (2) now provides that for a substance or preparation, or any dilution, concentration or admixture thereof, it shall be sufficient to use as the name of the poison the name, synonym or abbreviated name used to describe such substance or preparation in the British Pharmacopœia or the General Monographs or Formulary of the British Pharmaceutical Codex, provided the letters B.P. or B.P.C. are added thereafter. The like provision for a B.P.C. surgical dressing, for which a standard is described, is retained.

POISON RULE 17 (3) legalises the use of the name of poison or substance in the second column of the Sixth Schedule as the name of the poison (e.g., HYOSCYNINE as name for "Alkaloids of Belladonna").

POISON RULE 17 (4) legalises the use of STRYCHNINE or MORPHINE (or STRYCH. or MORPH.) as the name of the poison in nux vomica or opium preparations.

## GLOSSARY

The following items are affected:—

Name of poison (Glossary, p. 29)

(Rule 17 is entirely redrafted to enable the name of the poison (i.e., a poisonous substance) to be either (i) the term in the Poison List or (ii) one of the names, synonyms or abbreviated names set out at the head of the relative B.P. or B.P.C. monograph. The effect is to permit official names (such as DIAMORPHINE) to be used as alternatives for the Poison List terms (such as DIACETYLMORPHINE) which latter were previously compulsory. Consequently the official titles (denoted in the list by an asterisk or dagger) need not have the Poison List term (given in Capitals) appended and either is a self-sufficient name for the poisonous substance. The new rule is advantageous in enabling the known medicinal name (e.g., CINCHOPHEN) to be used in preference to the unusual chemical term (PHENYL-CINCHONINIC ACID). The B.P. (or B.P.C.) names are extended to dilutions, concentrations, and mixtures of B.P. (or B.P.C.) substances and preparations (see Rule 17 (2) above.)

Poison Bottle (Glossary, p. 39)

(Poison Rule 22 (1) is amended to exclude the use of a poison bottle for "a local anæsthetic for injection in the treatment of human or animal ailments.")

Proportion of Poison (Glossary, p. 31)

(Poison Rule 18 (3) is amended to extend the non-necessity of stating the proportion of poison on the label to substances and concentrations containing poisons designated by official (B.P. and B.P.C.) names, i.e., it is sufficient to state the proportion which the (B.P. or B.P.C.) substance or preparation bears to the total ingredients of the dilution, concentration or admixture.)

Signed Order (Glossary, p. 33)

(Poison Rule 7 (4) is amended to provide that, when "the seller is reasonably satisfied that the poison is required for the purpose of medical, dental or veterinary treatment," the purchaser need not state (except in the case of Dangerous Drugs) the purpose for which the poison is required on the "signed order" therefor. This concession relates only to "signed orders" from medical practitioners, dental or veterinary surgeons or from hospitals, infirmaries, dispensaries or clinics.)



# A Course of Photographic Studies

(Continued from THE CHEMIST AND DRUGGIST, January 14, p. 39)

## II—The Camera and the Lens

**T**HE camera consists essentially of five parts, a light-tight enclosure, bellows or box; a lens or device to form an image; a shutter to open and close the aperture for a chosen time; some means of maintaining the negative material in a correct and focused position; and a view finder indicating what the picture will include.

### The Pinhole Camera

This is the simplest form of photographic apparatus, but nevertheless with its simplicity can give results of high quality with suitable subjects. The rays of light from the object pass through the pinhole and give an inverted image on the sensitive material. There are two unique properties of the pinhole camera. The image has about the same degree of sharpness for any position of the film or plate and for any position of the object photographed. Its practical disadvantage is that so small a hole can only let in a small amount of light, which, even with the fastest of modern emulsions, demands comparatively long exposure, which in many cases is unacceptable. Now a prism of glass will bend or deviate such a ray of light away from its original path, and this change in direction depends both on the angle of the prism used, and two similar prisms placed base to base will bend two rays so that they meet in a point. A lens may thus be considered to be composed of a series of prisms of constantly changing angles placed together, the two middle ones base to base. The effect of this is to bend all rays coming from an object so that they pass altogether through a fixed point, thereby giving an image. If the object is very distant and the lens is a thin one, a spectacle lens for example, the distance of the image from the lens is called the focal length. In the case of a thick lens or a complicated system of lenses, the focal length cannot be measured so easily. If the object distance is altered, the image distance will change, and so it is necessary when placing a lens in a camera instead of a pinhole to have some means of focusing, unless only those objects which are at a certain distance from the lens are to be photographed. The main advantage of the lens is, of course, that it can be made of much larger aperture than a pinhole, giving brighter images, and therefore permitting far shorter exposures.

A negative is called "sharp" when point objects are rendered by circles no larger than  $\frac{1}{300}$  in. diameter. This limit is called the "circle of confusion." In negatives intended for enlargement it can be proportionately smaller. If it is imagined that a bundle of rays all pass through a point the sensitive materials or ground glass screen need not be placed exactly at this spot, but near enough for the plane to cut off a small circle no larger in diameter than  $\frac{1}{300}$  in. This can be either just in front or just behind the focal point, so that in between these two positions is a "depth of focus." Quite similarly, for a fixed position of the screen objects not the same distance from the lens can give fairly sharp images, because, although they are not actually in the plane that the lens is focused on, the rays from points just behind or in front of this plane will converge to a focus so that the small circle they give on the screen (or plate) is still less than  $\frac{1}{300}$  in. This then allows a "depth of field," as it is called.

In taking a picture the depth of field is sometimes of importance, and accordingly it is necessary to understand what is the effect of the stop, the lens, and distances chosen, seeing that the depth of field varies with these three quantities. From a point object the rays which converge on the image form a cone, and this cone may be moved up and down with the screen so long as it does not cut off too large a circle. If then the cone is made narrow in angle it can be moved much farther up and down—that is, for a small aperture there is increase in depth of field and depth of focus. This can be verified by resort to the ground-glass screen.

Generally, cameras are used with the film near the focal point—with a lens of a few inches focal length and distances of feet—even in the studio, but sometimes, as in copying to equal size, there may be only a magnification of one. When there is a large object-lens distance, a great variation in this object distance will only give a small variation in the image distance, so

that the image still remains sharp. When working close to, however, such a variation may move the image quite considerably, and the picture becomes unsharp. Depth of field (and focus) increase with object distance. Focal length affects depth of field. The movement of image for an alteration of object distance (for fixed aperture and fixed average distance) will be far larger, in proportion, for a long-focus (or telephoto) lens than for a short-focus lens. Hence our depth of focus for a 5 cm. is much greater than for a 45 cm. lens. To sum up, it may be said that depth of field increases with decreasing focal length. The practical corollary of this is that, under adverse conditions, sharp results are more easily obtained with a miniature camera, particularly with a range-finder.

### Changing Camera Types

The camera of 1880 was a whole-plate or half-plate tripod instrument. The early pocket Kodak, folding pocket Kodak and Brownie cameras had by 1900 initiated the vogue of the small hand-camera, and were to be imitated by many other makers in varying directions, all using roll film, film pack or cut film—the latter first introduced by Eastman in 1912. The popularity of snapshotting resulted in the establishment of the large D. & P. houses, equipped for dealing with hundreds of films a day by mass production methods. In press work and serious amateur photography the reflex type of camera achieved popularity, and improvement in emulsion grain and in enlargers resulted in the smaller quarter-plate becoming the standard size for serious workers outside the studio. In 1915 Oscar Barnack adapted the 35 mm. cinema film to still-camera purposes, and, in the Leica camera, which finally appeared in 1923, carried to its practical limit the tendency to decreasing negative sizes for still photography. The advantages of a short-focus lens and a small image size had been recognised by Piazzi Smith about 1850, and he had constructed a miniature plate camera; but the practical establishment of miniature camera methods had to await the application of precision standards to camera construction, the evolution of special grades of film material and improved facilities for enlarging.

### Attachments and Combinations

It is possible to combine lenses together and produce a different focal length by this means. Taking the case of thin lenses, there is a formula  $\frac{1}{F} = \frac{1}{f_1} + \frac{1}{f_2}$ , where  $f_1$  and  $f_2$  are

the focal lengths of the two lenses separately and  $F$  the focal length of the two together. A convex, double convex, plano convex, or better, a "converging" lens is defined as positive in focal length and a "diverging" (concave, plano concave, double concave) lens as of negative focal length. A lens of negative focal length gives only virtual images, which cannot be recorded on sensitive film. Simple calculations will show:—

1. That addition of a positive lens to a positive reduces the focal length. A 10-in. lens with a 10-in. lens gives effectively a 5-in. lens.
2. That combination of a negative lens with a positive lens will increase the focal length of the positive lens. A 10-in. lens with a + negative 20-in. lens gives a 20-in. lens.

When using such combinations it is advisable to stop down.

### Manufacture and Correction of Lenses

It is necessary that the optical glass in each lens and prism shall be uniform throughout. The ingredients depend on the glass required. Silica and other oxides are the chief base, and special glasses have lead, barium, zinc and many other substances added. Heavy lead content gives a flint glass, moderate proportions a crown. Different types of glass have different refractive indices (i.e. they bend rays to different degrees) and different relative dispersions (i.e. they spread out the colours in white light differently), and these variations make possible our corrections in lens designs. The desirable properties of optical glass are:—(1) Freedom from streaks, bubbles, solids, crystals or cloudiness and physical stains;



(2) freedom from colour; (3) high degree of transparency; (4) high chemical and physical stability and resistance to weather, handling, possessing great toughness and hardness. Lack of any of these properties will render the glass unfit for lens manufacture. These optical properties can be secured by varying the chemical composition.

### Lens Aberrations and Corrections

It will be simplest to list the common lens aberrations and show how increasing knowledge has enabled faults to be corrected.

*Spherical aberration* is caused by the spherical shape of lenses. Marginal rays are refracted (or bent) differently from the central rays. In practice, this causes unsharp images at large apertures. Correction is brought about by combination of positive and negative lenses with opposite errors.

*Coma* is spherical aberration of oblique rays, and produces a pear-shaped image of a point. Correction of coma is similar to that of spherical aberration—by opposite errors.

*Distortion*, which occurs particularly with single lenses, with which it is unavoidable, is chiefly dependent on the diaphragm position. Positive (or pin-cushion) distortion is produced by an iris behind the lens, and barrel-shaped (or negative) when placed in front. Its elimination is usually essential in architectural, aerial and much commercial photography. Balancing two elements about the diaphragm will eliminate it.

*Curvature of field* depends on the shapes, focal lengths and position of the lenses—in cameras the image is made to lie as closely as possible in the flat plane of the film. This can only be partly corrected for by combinations of opposite errors, and is usually small in anastigmats.

*Astigmatism* is concerned with oblique rays. Its effect is to converge rays from a point into two separate perpendicular lines. This affects sharp focus greatly, but is usually less for small angles of view.

*Chromatic aberration* is, with the advent of colour photography, of increasing importance. Put simply, different coloured rays are bent differently when passing through the lens. The blue focus is nearer the lens than the red focus in an uncorrected lens. Sharp images of multi-coloured objects are therefore not possible. Correction for two colours is made by using two different sorts of glass. Dispersion depends mainly on the glass used. A negative and a positive lens of different glasses can be combined to give a positive lens, and if they disperse the different wave lengths equally, the lens is corrected for chromatic aberration; such a lens is an "achromat." It is interesting to note that Newton did not realise different glasses had this property, and so used mirrors and reflecting telescopes. The remaining colours are not necessarily brought to focus. Generally they are not. The use for which a lens is intended determines which colours shall be brought to the same focus. For photographic purposes yellow and blue are generally corrected for, and the other colours are sufficiently close. Ordinary films are less sensitive to the red, but the increasing sensitivity of films to the red and the use of artificial light relatively rich in red rays makes necessary some correction for the red in really accurate work, and especially in three-colour work. Such lenses corrected for red, green and blue are called "apochromats."

### The Modern Lens and its Types

It was Chester Moore-Hall, an English amateur, who in 1733 discovered, and Dollond who in 1757 re-discovered, that with a positive crown and a negative lens of flint glass he could correct chromatic error. In 1830 Lister used two of Dollond's doublets to construct microscope objectives and spaced them apart to correct coma. About the same time (1802) Wollaston had shown how to correct the astigmatism of a spectacle lens, and used it in the camera obscura in 1812. He gave the lens a meniscus shape and placed the iris stop at a calculated distance in front of the lens. In a modern box camera this correction is made by placing the stop behind the lens. The correction of distortion dates from about 1860, and is based on Wollaston's invention. The correction is nearly accomplished by placing two equal menisci elements on opposite sides of the diaphragm. Such a "periscope" system is also approximately free from coma. The aberrations still uncorrected for are spherical and chromatic aberrations, and these limit the aperture to about  $f/11$ . The next problem to arise was that of increasing the apertures of the lens so that portraiture was possible. Joseph Petzval, a Hungarian mathematician, succeeded in doing this in 1840. He took Dollond's objective, corrected for spherical

and chromatic aberration, and firstly placed a stop behind to cut out astigmatism. The shapes he chose had very little coma. Then behind the stop he placed another doublet, also without astigmatism; this doublet too was separately corrected for spherical and chromatic errors, and the coma of the rear element was equal but opposite to the coma of the front pair. By balancing he reduced distortion, and his aperture was about  $f/3$ . The disadvantages were curvature of field and small field angle of  $15^\circ$ . In the 'sixties Dallmeyer in England and Steinheil in Germany concurrently introduced the rapid rectilinear lens, which gave a moderately extended field. It employed two cemented achromatic doublets, each with a large value of coma closely spaced about each side of the stop. Coma and distortion were corrected in the complete lens. Light flint glass and the usual dense flint were used. A field of  $40^\circ$ - $50^\circ$  was possible. A really flat field was not obtained, especially above  $f/8$ . The conditions for a flat field had been laid down by Airy in 1827 and Petzval thirteen years later re-discovered this, since Airy's work was not known. With the glasses then known it was impossible to get full correction. In 1888 Abbé and Schott produced glasses with the necessary properties, and soon after Schroeder, of Ross, patented the first anastigmat. Rudolph, of Zeiss, provided further improvements in 1890, and achieved the first anastigmat corrected for spherical errors—the Protar of aperture  $f/7.5$ . Four years later he was using eight elements. This was reduced to six in a Goerz lens of 1892.

These developments were chiefly due first to Airy and then Coddington in England about 1830, and then von Seidel in Germany in 1856, and especially to the glass production of Abbé and Schott at Jena. In 1893 another Englishman, H. Dennis Taylor, parted from tradition and solved these problems, using only three elements. He employed a positive and negative, air-separated from each other. On the further side of the stop he placed another second lens, thus correcting curvature of field almost independently of the refractive indices. The great improvement was that all three elements together were corrected for chromatism, and not each set separately. Since then no really new designs have arisen, and on the expiration of the patents this triplet design forming the basis of the Taylor-Hobson Cooke series has been adopted by all the leading designers. Three chief families of lens have been the subject of work by various opticians since the invention of the triplet. First the Continental type based on the efforts of Rudolph (Zeiss) and von Hoegh (Goerz), giving relatively large field but small aperture; secondly the Petzval type, extreme apertures and small field; and thirdly the triplet or Cooke type, yielding fairly large aperture and moderately large field. Much work since the war has been done both in optical glass and lens design by the elaboration of these basic designs to give, in most instances, increasingly large apertures.

Lenses of the Continental type have one advantage—convertibility: the change of one complete achromatised element for another is possible. The number of elements was increased to eight or more and aperture up to about  $f/4$ . Owing to the large angle ( $70^\circ$ ) covered, this type is extremely useful for air survey work. To supply the demand for more rapid lenses the Petzval type has been developed. The aperture has been carried to  $f/1.5$  by Kodak, and is used for sound reproduction. Zeiss, by addition of another element, have extended the aperture to  $f/0.85$ . These high-speed lenses retain narrow field angle. Most of the modern lenses have been developed from the Taylor triplet. Replacement of some of the simple elements by a more complicated system gives the Zeiss Tessar, Voigtlander Heliar, and, more recently, the Kodak Ektar and Duo  $f/3.5$ . The Meyer Plasmart  $f/1.5$  has a similar divided dispersive element. Recent improvements make apertures of  $f/1.5$  fairly easily obtainable and  $f/1$  possible. The necessity to avoid noise of movement of camera trucks during the taking of talkies has hastened the perfection of the variable-focal-length type of lens. Three relative parts are needed and eleven elements. It is obvious that the mere addition of a lens to change the focal length, as with the common attachments and supplementary lenses, may introduce defects in the image, and therefore the aperture must be restricted to  $f/11$  or  $f/16$ . The telephoto lens consists of, first, a positive lens followed by a negative. The focal length is large but the lens compact. It dates back to Barlow in 1834 and its first use in photography to 1891, almost simultaneously in France, England and Germany. The first anastigmat telephoto was made probably by Taylor and Hobson in 1914 and used by the R.A.F. Improvements in which Dallmeyer have taken a leading part have opened up the effective aperture to about  $f/3$ .

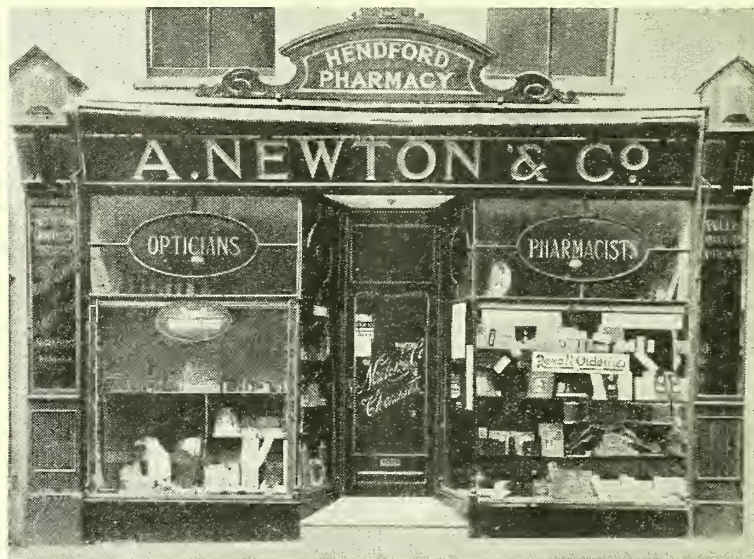
(To be continued)



# Shop-front Designs of Three Periods

THE changes brought about in shop-front design within the lifetime of middle-aged readers are typified in the accompanying illustrations of a pharmacy at Yeovil, Somerset. The business was opened by Mr. Arthur Newton, M.P.S., in 1892, when the small front with one window and a

the name in enamel-filled bronze letters, takes the place of the sloping incised facia and bulky pilasters of the previous period. Display space in the window is increased in height and the over-transom glazing is relieved by acid-embossed lines and lettering naming two departments of the business.



Left: Original single-windowed shop front erected when the business was founded in 1892. Right: Double-windowed frontage installed twenty years later.

narrow entrance was installed. Features of this shop front that are characteristic of the period are the brass stall-plate bearing the name in script lettering, low bressummer (crossbeam) supporting carboys and dividing the window into two almost equal portions, hanging gas-lamp at entrance, spandrels in top corners of window, sloping facia with overhanging cornice, and blind box with iron arms fixed to front lath. The shop front, which was of wood, had neither pilasters nor any facing for the risers.

1912

A change made some twenty years later, while providing a capacious double-windowed shop front, was (judged by present-day standards) no great improvement from the point of view of unity of design. Typical features of its period are the heavy pediment, bulky pilasters with "dog-kennel" capitals and lettered panels, and gilt-incised facia, while the stall-risers are lower and faced with granite. The front is devoid of all symbols of pharmacy and has nothing, apart from its stock, to distinguish it from a stationer's, outfitter's, or music seller's premises.

1937

In 1937 the business was made a limited company, with the founder of the firm as managing director, and his son (Mr. Hugh A. Newton) as a director, and a third front was installed. The present front has the clean-cut, straightforward lines of the best contemporary design. A bold surround of marble, bearing

The sunblind, operating on collapsible trellis-type arms, is neatly incorporated in the surround. It may seem a pity that the opportunity was not taken to re-introduce the carboy symbol somewhere in the front, and the criticism may be offered that the three reflectors in each of the windows could have been concealed by pelmets, but on the whole the present shop front is pleasing, dignified and serviceable.



The present shop front, constructed in 1937 after conversion of business into limited company.



# The Scope of Pharmacognosy

By T. C. Denston, B.Pharm., A.I.C., Ph.C., F.L.S.

**P**HARMACOGNOSY is the science concerned with the study of crude drugs of vegetable and animal origin. To the pharmacist, a knowledge of this subject is of prime importance both for the purchase, storage and sale of crude drugs and for their use in galenical preparations. Although the preparation of galenicals in individual pharmacies has declined, there still remains a considerable demand from the public for certain crude drugs. Indeed, the sale of these appears to show an appreciable increase in recent years. The term pharmacognosy has been in use for little more than a century, but the foundations of the science are found in early civilisations. Assyrian, Egyptian, Chinese and Greek records of great antiquity make reference to the characters and uses of herbs and drugs. The knowledge of medicinal plants spread in Western Europe largely through monasteries and schools of medicine. In the sixteenth century the early botanists published herbals describing, usually with the aid of wood engraving, the characters and uses of an increasing number of plants. With the growth of botanical knowledge (itself largely due to interest in plants as curative agents) and the advancement of chemistry, pharmacognosy became established as a science, making especial use of these two sciences for its work. The designation "materia medica" was formerly used in pharmacy in reference to the study of crude drugs, but the term is now applied, especially in medical literature, to all substances used in medicine, including pure chemical compounds and biological preparations such as vaccines and sera. It should be clearly understood that pharmacognosy is not limited to the comprehensive study of individual drugs, but also attempts to elucidate general principles. For each crude drug studied, a number of points have to be considered, but the basic considerations must not be overlooked when dealing with an individual case. Thus the principles underlying the methods used for the drying and storage of drugs should be studied before individual cases are considered. Again, the general properties of the classes to which the commoner drug constituents belong must be known before any particular drug is examined. The information required for a comprehensive knowledge of a drug embraces the points dealt with in the following paragraphs.

## Biological Source

The Latin name of the plant or animal yielding the drug and the family to which it belongs is first required. After the generic and specific Latin names there is printed, in different type, the name, often in abbreviated form, of the biologist responsible for the classification. The purpose of this is partly to avoid confusion where two botanists, for example, have given the same name to different plants or different names to the same plant. Thus the one plant yielding the official fruit fennel has been classified and named *Foeniculum capillaceum* Gilib., *Foeniculum officinale* All. and *Foeniculum vulgare* Mill. by three botanists, namely, Gilibert, Allioni and Miller. The last-named is the authority now accepted and therefore adopted by the British Pharmacopoeia. If the official monograph on clove is consulted, it will be found that the plant yielding the drug is described as *Eugenia aromatica*, followed by the words—(Linn.) Baill. This method of citing the authorities responsible for the classification indicates that the specific name *aromatica* was originally given by the botanist whose name is placed in brackets, (Linnaeus), but that it was transferred from the original genus (actually *Caryophyllus*) to the genus *Eugenia* by the second botanist, Baillon. The student of pharmacognosy may, however, ignore these personal names in work within the limits of the examinations of the Pharmaceutical Society. It is of value to know the family to which a drug belongs, since certain of the characteristic features of that family may show in structures present in the drug. For example, in the family *Solanaceae* the fruit is either a berry (e.g. belladonna and capsicum) or a capsule (e.g. stramonium and henbane), in both cases with a persistent calyx; the fruits of the *Umbelliferae* are cremocarps (e.g. fennel, caraway, dill and coriander) and members of the *Rutaceae* commonly have schizo-lyigenous oil-glands (e.g. buchu, bitter orange peel and lemon peel).

## Geographical Source

The principal areas of collection and cultivation and the routes of transport come next in importance. These localities do not necessarily correspond to the geographical distribution of the plant or animal, which is termed the habitat. To the large-scale drug buyer this knowledge is of considerable importance, since abnormal conditions in a drug-producing region may cause great price fluctuations. The effect of the Spanish war on supplies of ergot, gentian and saffron is an example of this.

## Plant Habit

Knowledge of the general structure of the plant is needed, especially in so far as it governs the character of the drug derived from it, since the season at which the plant flowers or fruits, considered with the geographical origin, indicates the time at which fresh crops of the drug may be available. Chamomile and bitter orange peel illustrate this point.

## Cultivation, Collection and Preparation

These factors require particular attention when they affect the appearance or quality of the product. In the case of cinnamon, the bark is taken from the shoots of coppiced trees (giving thin, straight pieces of bark), carefully scraped to remove the cork and cortex (giving a smooth outer surface), made into compound quills, trimmed and graded (giving uniform "sticks") (see *C. & D.*, December 10, p. 633). The enhanced quality of certain drugs when obtained under cultivation, especially by the selection of a strain of seed giving robust growth and an increased percentage of active constituents, is exemplified by the higher potency of cultivated samples of belladonna and foxglove leaf. Appropriate methods of drying and storage to preserve the quality of drugs must also be considered.

## Morphological and Sensory Characters

A knowledge of these and the discrimination of those of diagnostic importance is essential for the identification of a drug. By studying the fine details of macroscopical structure, drugs may be recognised when present in a broken or chopped condition. Thus, in samples of coarsely-broken foxglove leaf, fragments of the leaf margin show the characteristic manner in which the ultimate branches of the veinlets terminate in the marginal crenations.

## Histology

This includes a study of the disposition of the tissues of which the plant organ is composed, together with the arrangement, nature and contents of the elements in the tissues. Such knowledge may be utilised to distinguish between two related drugs, e.g. cascara and frangula bark, the latter being devoid of sclerenchymatous cells which are present in the cortex of the former. Histology may also throw light on the mode of preparation of a drug for the market; thus cinnamon, as mentioned above, is prepared by scraping off the outer layer of bark down as far as the pericycle. Microscopical examination shows this tissue to be a thick band of hard sclerenchymatous cells which offer appreciable resistance to the scraping knife and hence a uniform, smooth outer surface can be obtained. Without this tough pericycle it would be extremely difficult to obtain the fine quills of outer bark. Cardamom seeds are required by the British Pharmacopoeia to be kept in their fruits until required for use and one of the reasons for this practice is seen from a study of the histology of the drug. The seeds are extremely hard and histological examination shows this to be due to a sclerenchymatous layer in the inner part of the testa, the remainder of which is thin-walled. Volatile oil, the only important constituent of the seeds, is secreted in cells of the testa external to the sclerenchyma and hence friction will easily break the outer cells of the testa and liberate the oil. The pharmacopoeial requirement therefore minimises loss of volatile oil, which would be considerable if the seeds entered



commerce in a separated condition. From a microscopical examination of an authentic specimen of powdered drug, the diagnostic structures may be recorded and commercial samples then examined for identity and purity. Such work of identification and evaluation of powdered drugs is one of the most important branches of pharmacognosy. Quantitative as well as qualitative methods are used.

### Commercial Varieties, Substitutes and Adulterations

Many drugs are available in various grades (e.g. senna leaf, senna fruit and cinnamon) and the pharmacopoeial requirements must be interpreted to decide which grades are official. From a knowledge of the diagnostic characters of authentic drugs, a critical examination may be made of commercial samples to determine their purity. Substances known as potential substitutes or adulterants should be examined and the distinguishing features carefully noted.

### Constituents

Although a vast number of chemical compounds have been isolated from crude drugs, most of the physiologically active constituents belong to one of relatively few groups, e.g. alkaloids, glycosides, tannins, anthraquinone derivatives, fixed or volatile oils, etc. For each drug, the active constituents must be known and also their physical and chemical properties, these often being indicated by the chemical class to which the compound belongs. For example, if the active constituent is an alkaloid, it follows (with few exceptions) that it is a crystalline substance, insoluble in water, soluble in organic solvents, forming salts with the reverse solubilities and precipitated from solution by tannins and potassio-mercuric-iodide solution. In addition to active principles, any constituents which affect the mode of preparation or the character of galenicals must be noted. For example, in preparing the extracts of liquorice, the valuable constituents are extracted together with undesirable proteins and the latter must be removed, e.g. by coagulation by heat, before completing the galenical.

### Evaluation of Drug Samples

In this work, much of the knowledge considered under the preceding headings is utilised to determine the authenticity and

quality of commercial crude drugs. The methods used may be summarised as follows:—

(a) *Morphological, Anatomical and Sensory Characters*.—An adulterant usually shows differences in these features. Sensory characters are observed specially in drugs containing volatile oils or pungent principles and for the detection of the effects of inadequate drying and damp storage.

(b) *Qualitative Tests*.—General reactions for plant constituents are applied and also specific tests for such drugs as *strophanthus*, *catechu* and the balsams.

(c) *Chemical and Biological Assay*.—These determinations may detect adulteration or indicate the quality. Examples of chemical assay are found among the alkaloidal drugs (e.g. *solanaceous* leaves, *cinchona*, *ipecacuanha* and *opium*) and the balsams. Biological assay is applied to cardiac glycoside drugs, e.g. *foxglove* leaf, *vitamin* drugs, e.g. *cod-liver oil*, and *hormone* and *bacteriological* preparations.

(d) *Extractive Tests*.—The yield to an appropriate solvent is sometimes applied to determine the quality of drugs, especially when in powdered form. Crushed linseed, ginger, liquorice and myrrh are examples. Drugs containing volatile oil are examined by determining the percentage of oil yielded by steam distillation.

(e) *Ash Values*.—On incineration of crude drugs a residue of mineral substances remains, derived from the cell walls and cell contents. For most official drugs a maximum limit of ash is prescribed, generally with the object of securing the absence of an undue proportion of extraneous mineral matter, such as soil on leaves or inadequately washed roots. The determination is particularly valuable when applied to powdered drugs, which may be thus contaminated, by carelessness, accident or deliberate intent.

(f) *Physical Tests*.—Determination of physical constants is of importance in examining the authenticity of samples of fixed and volatile oils, fats and waxes.

(g) *Fluorescence Analysis*.—On subjecting drugs to ultra-violet light (invisible), many show a characteristic fluorescence in the visible region of the spectrum. Valuable analytical methods, with the merits of simplicity and rapidity, have been developed on this phenomenon and the Addendum (1936) to the British Pharmacopœia includes under *rhubarb* an example of such a test.

## Recent Research

### Oil of *Eucalyptus Australiana*

In a second paper on the essential oil of *Eucalyptus Australiana* ("Journal of the Proceedings of the Royal Society of New South Wales," LXXI, 357), Penfold and Morrison have dealt with oils obtained from trees grown in Victoria. The characters of these oils were found to be as follows:—

	1	2	3	4	5	6	7
Yield per cent	1.35	0.53	0.87	0.4	1.75	0.95	1.6
Sp. gr.	0.9167	0.8777	0.8713	0.8882	0.8748	0.8811	0.9036
Optical rotation	+5.2°	-36.3°	-64.6°	-65°	-48.3°	-68.5°	-50.9°
Refractive index	1.4653	1.4809	1.4776	1.4812	1.4764	1.4796	1.4830
Cineol	50%	Nil	Nil	Nil	Nil	Nil	Nil
Piperitone	—	—	Nil	36%	Nil	32%	52%
Phellandrene	None	Abundant	Abundant	Abundant	Abundant	Abundant	Abundant

The differences observed are explained by the hypothesis that there are several physiological forms of the plant.

### Cryptol, Dihydrocryptol and Cumyl Alcohol

As a preliminary to a search for cryptol, dihydrocryptol and cumyl alcohol in essential oils Cooke, Gillespie, Macbeth and Swanson ("Journal of the Chemical Society," 1938, p. 1820) have devised methods for preparing these alcohols and established constants both for the compounds and a series of crystalline derivatives. The constants recorded for these alcohols were as follows:—

	Cryptol	Dihydro-cryptol	Cumyl alcohol
Specific gravity at 15° C.	0.9388	0.9209	—
Refractive index at 20° C.	1.4780	1.4667	1.5181
Optical rotation	-42.5°	inactive	inactive
Boiling point	82-83°/2 mm.	84-85°/5 mm.	91°/0.7 mm.

### Determination of Rotenone

ROTENONE forms solvates with a large number of organic solvents, and Jones ("Industrial and Engineering Chemistry," Analytical Edition, December 1938, p. 684) has now found that dichloroacetic acid forms a definite compound in which the ratio of acid to rotenone is 1:1. The author describes a method by which this solvate can be quantitatively prepared and by which the acid, and therefore the rotenone, can be determined by titration with sodium hydroxide solution. Although the method gave satisfactory results with crude rotenone of about 90 per cent. purity, it was not applicable to whole derris or cube extracts since the resinous material prevented quantitative measurements.

### $\beta$ -Phellandrene Maleic Anhydride

ACCORDING to Goodway and West ("Journal of the Chemical Society," December 1938, p. 2028) 1- $\beta$ -phellandrene gives, on treatment with a solution of maleic anhydride, resinous substances which on vacuum distillation yield a small quantity of a product shown to be identical with 1- $\alpha$ -phellandrene-maleic anhydride adduct. The authors bring forward evidence in support of the contention that the 1- $\beta$ -phellandrene employed (obtained by fractional distillation from Canada balsam oil) was not contaminated with a small quantity of the  $\alpha$ -isomeride. In view of the fact that in  $\alpha$ - and  $\beta$ -phellandrene the conjugated system of double bonds occur locked in the *cis* and *trans* positions respectively, the behaviour of the simple terpene molecules with maleic anhydride is of importance in view of the results recently published on the diterpenes and sterols in which molecular structure is not yet definitely settled. The implication of this double-bond shift with reference to the recently advanced formulas for ergosterol-D and ergosterol-B, is discussed.



# Trade Returns 1935-38

The following tables and other information, which have been compiled from the December, 1938, Trade and Navigation Accounts, provide a comparison of our International trade for the years 1935 to 1938

The values of our international trade in all classes of merchandise, exclusive of bullion and specie, for the years under review were:—

Year	Imports	U.K. Goods Exported	Re-Exports	Total Exports	Total International Trade	Debit Trade Balance
	£	£	£	£	£	£
1938 ... ..	920,437,586	470,883,489	61,607,985	532,491,474	1,452,929,060	387,946,112
1937 ... ..	1,029,064,626	521,594,386	75,166,655	596,761,041	1,625,825,667	432,303,585
1936 ... ..	848,935,895	440,718,784	60,135,361	501,135,145	1,350,071,040	347,800,750
1935 ... ..	756,936,175	425,921,343	55,243,347	481,186,719	1,238,122,894	275,749,456

## Chemicals, Drugs, Dyes and Colours

The following tables show the values and sources of supply of imports and the values and destinations of exports of United Kingdom goods of the group "Chemicals, Drugs, Dyes and Colours" for the years 1936 to 1938:—

Imports			
From	1938	1937	1936
	£	£	£
Union of South Africa ...	271,730	305,728	244,529
British India ... ..	162,384	248,228	233,906
Canada ... ..	586,897	624,513	592,838
Other British Countries ...	476,126	472,380	380,206
Soviet Union ... ..	70,822	73,955	60,733
Sweden ... ..	180,582	186,127	178,494
Norway ... ..	495,407	468,098	385,391
Germany ... ..	3,978,919	4,600,209	4,152,256
Netherlands ... ..	528,765	482,656	470,360
Java ... ..	5,412	11,437	25,102
Belgium ... ..	593,868	589,195	559,307
France ... ..	976,838	750,928	833,148
Switzerland ... ..	858,134	844,637	782,169
Spain ... ..	52,069	96,932	171,293
Italy ... ..	192,846	203,313	28,196
Yugoslavia ... ..	103,667	124,244	145,985
Japan ... ..	68,607	95,012	118,526
United States of America ...	2,636,701	2,656,773	2,166,687
Chile ... ..	410,971	239,423	323,573
Argentine Republic ...	231,399	372,968	306,354
Other Foreign Countries ...	342,483	390,563	420,411
Total ... ..	13,214,627	13,837,325	12,579,464

Exports			
To	1938	1937	1936
	£	£	£
Eire ... ..	1,151,289	1,109,705	1,058,638
British West Africa ...	499,612	632,890	556,615
Union of South Africa ...	1,723,658	1,649,219	1,567,259
British India ... ..	2,951,959	2,973,781	2,530,460
British Malaya ... ..	614,781	695,800	408,974
Ceylon ... ..	302,616	313,675	218,887
Hong Kong ... ..	485,281	493,845	244,868
Australia ... ..	2,053,978	2,020,271	1,854,648
New Zealand ... ..	813,168	869,843	731,659
Canada ... ..	1,149,289	1,279,114	1,235,136
British West India Islands	375,614	357,026	299,033
Other British Countries ...	1,216,317	1,322,002	1,169,217
Soviet Union ... ..	98,957	96,596	77,349
Sweden ... ..	540,623	620,083	528,056
Norway ... ..	357,374	495,403	384,556
Poland ... ..	105,314	159,438	101,603
Germany ... ..	228,717	341,549	302,501
Netherlands ... ..	463,447	569,399	543,410
Dutch East Indies ...	140,934	154,325	125,208
Belgium ... ..	287,661	403,723	312,202
France ... ..	735,060	813,600	853,579
Switzerland ... ..	79,185	82,672	86,516
Portuguese East Africa ...	74,065	130,793	116,182
Spain ... ..	233,255	196,687	180,427
Canary Islands ... ..	76,013	75,948	87,077
Italy ... ..	129,763	190,527	8,145
Greece ... ..	144,680	145,504	174,218
Egypt ... ..	454,111	516,668	468,070
China ... ..	146,261	482,348	440,487
Japan ... ..	103,226	374,240	309,671
United States of America ...	928,171	1,249,813	1,024,493
Chile ... ..	127,778	137,352	91,395
Brazil ... ..	434,687	471,264	398,472
Argentine Republic ...	690,859	848,598	656,565
Other Foreign Countries ...	2,130,978	2,386,330	1,946,418
Total ... ..	22,048,681	24,660,151	21,091,994

The aggregate totals for the years 1935 to 1938 in the group "Chemicals, Drugs, Dyes and Colours" were as follows:—

Year	Imports	U.K. Goods Exported		Re-exports	Total Exports	Total International Trade	Credit Trade Balance
		To Empire Countries	To Foreign Countries				
	£	£	£	£	£	£	£
1938 ... ..	13,214,627	13,337,562	8,711,119	471,668	22,520,349	35,734,976	9,305,722
1937 ... ..	13,837,325	13,708,171	10,951,980	469,663	25,129,814	38,967,139	11,292,489
1936 ... ..	12,584,235	11,881,249	9,217,841	403,676	21,502,766	34,087,001	8,981,531
1935 ... ..	11,941,031	11,385,644	9,034,489	578,879	20,999,012	32,940,043	9,057,981



# Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

## 28 Essex Street, W.C.2, January 19

SOME markets report a better inquiry with a fair amount of business of limited size, while in other directions conditions remain on the quiet side. The general tone, as reflected by quotations, is distinctly steady, and there is no doubt that commodity values and those of manufactured products are now at a level that does not permit much further discounting. A further slight swing back in favour of sterling is noted in exchange rates, and steadier conditions in this aspect of the markets seem likely. Business in PHARMACEUTICAL CHEMICALS continues on moderate lines, with some of the seasonal products attracting more inquiry. All gall products continue firm. With better supplies of raw material coming to hand the position of EPHEDRINE HYDROCHLORIDE, B.P., is no longer acute, but values are steady.

### Crude Drugs

Early in the week there was quite a nice general business recorded, but a quieter tone has since prevailed. Steady business continues on spot in AGAR; shipment prices for new crop are maintained. CAPE ALOES are reported steadier after a long spell of depression; the CURAÇAO variety is very firm on spot, with no shipment offers. Canada BALSAM is steady at the recent advance. BUCHU remains dull and easy on spot. All descriptions of CARDAMOMS are quoted firmly; business quiet. Average spot business in CASCARA SAGRADA at steady prices. Norwegian shipments of COD-LIVER OIL during 1938 show a decline of nearly 18,000 barrels compared with the 1937 figures. A fair business in Japanese MENTHOL and the CHINESE product is finding more favour. Spot supplies of RHUBARB are moving, and prices are fully maintained; efforts to obtain shipment offers have failed. RUBBER shows a loss on the week, and the market has been quiet. SENEGA continues firm on spot, with no shipment offers. All descriptions of SENNA quoted unchanged, market quiet. SHELLAC is much steadier.

### Essential Oils

Some dealers report a rather better inquiry for these products, while others report no material improvement in demand. Prices for genuine oils continue steady, but some markets are being weakened by low quotations. Only a limited business in ANISE (STAR) on spot. New crop BERGAMOT is quoted steadily. Japanese white CAMPHOR is very scarce and nominal; no shipment offers. CANANGA is easier and dull. CASSIA continues slow in moving. Cheap shipment quotations continue for JAVA CITRONELLA. Advances from the source report a much stronger market for Australian EUCALYPTUS; shipment quotations for branded oils have been advanced sharply, and it is stated that, due to the extreme drought and heat, the crop of oil has been almost a complete failure; spot values have advanced in sympathy. Sicilian hand-pressed LEMON is rather easier following the recent better tone, with some shippers' quotations cheaper. Forward buyers of French GUINEA ORANGE will need to exercise care if the report is correct that there is a substantial quantity of old and unreliable quality oil on the Coast for disposal.

A drug auction will be held at the Commercial Sale Rooms, on Thursday next, January 26.

### Exchange Rates on London

The following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	January 12	January 19
Amsterdam ...	Fls. to £	12.107	8.58	8.62
Berlin ...	Mks. to £	20.43	11.64	11.66
Brussels ...	Belgas to £	nominal	27.65	27.68
Copenhagen ...	Kr. to £	18.159	22.40	22.40
Lisbon ...	Esc. to £	110	110	110
Madrid ...	Ptas. to £	25.24½	nominal	nominal
Milan ...	Lire to £	92.46	88½	88½
Montreal ...	Dols. to £	4.86½	4.71	4.71½
New York ...	Dols. to £	nominal	4.67	4.68
Oslo ...	Kr. to £	18.159	19.90	19.90
Paris ...	Fr. to £	124.21	177	177½
Prague ...	Kr. to £	164.25	136	136½
Stockholm ...	Kr. to £	18.150	19.40	19.40
Warsaw ...	Zloty to £	43.38	24½	24½
Zurich ...	Frs. to £	25.2115	20.66	20.70

Bank rate 2 per cent.

### Pharmaceutical Chemicals, etc.

A MODERATE business is reported from most quarters, with values generally unchanged on quotation.

ACETANILIDE.—Steady, quiet: B.P. crystals and powder quoted at 1s. 7d. to 1s. 10½d. per lb., as to quantity.

AMIDOPYRINE.—Dealers' quotations are keen: crystals, two cwt., 9s. 4d.; one cwt., 9s. 8d.; less than one cwt., 10s. per lb., with powder 2½d. per lb. extra.

AMMONIUM ICHTHIOSULPHONATE.—Scale of prices is unchanged: one cwt., 1s. 6½d., in 14-lb. tins; 1s. 8d. in 1-lb. tins; 1s. 10d. in 8-oz. tins; and 2s. 1d. per lb. in 4-oz. tins.

ASPIRIN.—Makers' scales of prices continue steady at the recent reduction:—

In containers of	1 lb.	2 lb.	4 lb.	7 lb.	14 lb.	28 lb.
1 lb. and under 4 lb. ...	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
4 lb. and under 7 lb. ...	3 3	3 1½	—	—	—	—
7 lb. and under 14 lb. ...	3 2	3 0½	3 0½	—	—	—
14 lb. and under 28 lb. ...	3 1	2 11½	2 11½	2 10½	—	—
28 lb. and under 1 cwt. ...	3 0	2 10½	2 10½	2 9½	2 9½	—
Not less than 1 cwt. ...	2 11	2 9½	2 9½	2 8½	2 8½	2 8
Not less than 5 cwt. ...	2 7½	2 6	2 5½	2 5½	2 5	2 4½
Not less than 10 cwt. ...	2 7	2 5½	2 5½	2 4½	2 4½	2 4
Not less than 10 cwt. ...	2 6	2 4½	2 4½	2 3½	2 3½	2 3

The quotations for aspirin, powder and tablets, are subject to the following conditions:—Buyers not to resell any quantity at prices or terms below the scale for such quantity current at the time the resale is made, and, if he converts the aspirin into tablets, not to sell any quantity of tablets at prices or terms below the scale for such quantity current at the time when he sells the tablets.

BISMUTH SALTS.—Makers' home trade and export scales of prices for these salts continue steady:—

	Net Monthly Account			Net 14 days	
	Under 4 lb.	4 lb. and under 8 lb.	8 lb. and under 28 lb.	28 lb. and under 1 cwt.	Not less than 1 cwt.*
Carbonate ...	s. d.	s. d.	s. d.	s. d.	s. d.
(Home Trade only) ...	8 6	8 0	7 3	6 9	6 6
Citrate ...	11 10	11 4	10 7	10 1	9 10
Nitrate Cryst. ...	6 8	6 2	5 5	4 11	4 8
Oxide ...	12 11	12 5	11 8	11 2	10 11
Salicylate ...	10 0	9 6	8 9	8 3	8 0
Subchloride ...	12 8	12 2	11 5	10 11	10 8
Subgallate ...	9 8	9 2	8 5	7 11	7 8
Subnitrate ...	7 10	7 4	6 7	6 1	5 10

\* Contracts are booked for 1 cwt. and upwards for delivery over three months and are subject to a rise and fall clause. A rebate of 3d. per lb. is allowed on sales of not less than a cwt. (assorted if required) provided delivery is completed within three months. All deliveries ex contract are sold on net cash 14 days' terms.

BROMIDES.—Makers' scales of prices steady. POTASSIUM, B.P., five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s. per lb. SODIUM, B.P., five cwt., 1s. 10d.; one cwt., 1s. 11d.; 28 lb., 2s. 2d. per lb. AMMONIUM, B.P., five cwt., 1s. 11d.; one cwt., 2s.; 28 lb., 2s. 3d. per lb. net. Resale clause applies. 28-lb. parcels and one-cwt. cases free. Smaller quantities than 28 lb. at higher prices. Export quotations are maintained as follows: POTASSIUM, B.P., five cwt., 1s. 4d.; one cwt., 1s. 4½d. SODIUM, B.P., five cwt., 1s. 5d.; one cwt., 1s. 5½d. AMMONIUM, B.P., five cwt., 1s. 6d.; one cwt., 1s. 7d. per lb., f.o.b.

BUTYL CHLORAL HYDRATE.—Business quiet: spot, 14 lb., 8s.; 7 lb., 8s. 3d.; 1 lb., 8s. 6d. per lb., in 1-lb. bottles.

CAFFEINE.—The new scales of prices for Continental materials continue steady, as follows:—PURE: bricks, less than 56 lb., 9s. 9½d.; 56 lb., 9s. 7½d.; one cwt., 9s. 5½d. per lb. Powder, less than 56 lb., 10s. 1d.; 56 lb., 9s. 11d.; one cwt., 9s. 9d. per lb. Anhydrous powder, less than 56 lb., 10s. 6d.; 56 lb., 10s. 4d.; one cwt., 10s. 2d. per lb. CITRATE: less than 56 lb., 6s. 6½d.; 56 lb., 6s. 5½d.; one cwt., 6s. 4½d. per lb. delivered United Kingdom, duty paid. Cases and 5-lb. tins free.

CHLORAL HYDRATE.—Steady at makers' prices; duty-paid crystals, in 14-lb. free containers, five cwt., 3s. 2d.; one cwt., 3s. 3d.; 28 lb., 3s. 4d. per lb.; 28-lb. jars one penny per lb. extra.

CITRIC ACID (B.P. CRYSTALS).—Market continues steady: British material quoted at 1s. 0½d. per lb., less 5 per cent. discount, nominal



and without engagement. Dealers' prices for imported material are competitive.

**CREAM OF TARTAR.**—Fair inquiry reported: British material, 99 to 100 per cent., 92s. per cwt., less 2½ per cent. discount. Dealers' prices for foreign material competitive.

**CREOSOTE (B.P.).**—Market is quiet: bulk quantities, in 25-kilo demijohns, 1s. 6d.; small parcels, 1s. 7½d. up to 2s. per lb., ex store.

**EPHEDRINE.**—Average inquiry, with values steady: Hydrochloride, B.P., quoted at about 6s. per oz. for minimum 1,000-oz. lots; small quantities, up to 7s. Pure alkaloid is quoted from 7s. 9d. to 8s. 3d. per oz., as to quantity.

**GALLIC ACID.**—Market is firm: spot, one cwt., 3s.; 56 lb., 3s. 1d.; smaller parcels, up to 3s. 6d. per lb.

**LACTIC ACID (B.P.).**—Steady, business moderate: quantities, in carboys, 1s. 4d. to 1s. 5d.; in winchesters and bottles, 1s. 6d. to 1s. 10½d. per lb., as to quantity.

**METHYL SALICYLATE.**—Makers' prices unchanged, limited business: spot, ten cwt., 1s. 1½d.; five cwt., 1s. 2d.; one cwt., 1s. 2½d.; less than one cwt., 1s. 3d.; smaller quantities, in bottles, up to 2s. per lb.

**PHENACETIN.**—Home makers' prices steady: crystals or powder, bulk quantities, from 2s. 6d.; smaller parcels, 2s. 7d. up to 3s. per lb., as to quantity.

**PHENAZONE.**—Inquiry remains quiet: crystals, five cwt., 6s. 9½d.; two cwt., 7s.; one cwt., 7s. 3d.; and less, up to 7s. 6d. per lb., with powder 2½d. per lb. extra.

**PHOTOGRAPHIC CHEMICALS.**—Home makers' prices are as follows: **AMIDOL.**—28 lb., 8s.; 14 lb., 8s. 9d.; 7 lb., 9s. 6d., in free 7-lb. tins; under 7 lb., 12s. per lb., in free 1-lb. bottles. **CHLORQUINOL.**—1-lb. bottles, 21s. per lb. **GLYCIN.**—7 lb., 10s. 6d.; 1-lb. bottles, 13s. 6d. per lb. **HYDROQUINONE.**—56 lb., 4s. 10½d.; 28 lb., 5s.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; in 1-lb. bottles, 6s. 6d. per lb. **METOL.**—28 lb., 9s. 6d.; 14 lb., 9s. 9d.; 7 lb., 10s. 6d., tins free; 3 lb., 12s., bottles free; 1-lb. bottles, 12s. 6d. per lb., bottles free. **ALUM (PHOTOGRAPHIC QUALITY).**—1 cwt., 21s. per cwt.; 28 lb. for 6s. **GOLD CHLORIDE.**—15-grain tubes, 45s. per doz. **MAGNESIUM POWDER.**—10s. per lb. **PARAMIDOPHENOL HYDROCHLOR.**—8s. 6d. per lb., bottles free. **POTASSIUM FERRICYANIDE.**—14 lb., 2s. 2d.; 7 lb., 2s. 4d.; 1 lb., 2s. 6d. per lb. **POTASSIUM METABISULPHITE.**—One cwt., 8d.; 28 lb., 9d.; 14 lb., 10d.; 7 lb., 1s. per lb. **PYROGALLIC ACID, CRYST.**—One cwt., 7s. 9d.; 56 lb., 8s.; 28 lb., 8s. 3d. net; 14 lb., 9s.; 7 lb., 9s. 9d.; less than 7 lb., 10s. 3d. per lb., less 2½ per cent., monthly account. Resale in small packages: 1-oz. bottles, 2s.; 4-oz., 5s. 3d.; 8-oz., 9s.; 16-oz. bottles, 16s. 1½d. each, less 33½ per cent. to the trade. **RESUBLIMED:** 1-oz. bottles, 2s. 6d.; 4-oz., 6s. 6d.; 8-oz., 11s. 3d.; 16-oz. bottles, 20s. 3d. each, less 33½ per cent. to the trade. **SODIUM (CARBONATE RECRYST.).**—5 cwt., 12s. 6d. per cwt.; 1 cwt., 15s. 6d. per cwt.; 56 lb. for 11s. 6d.; 28 lb. for 6s. **SODIUM HYPOSULPHITE, CUBES, CRYST.**—5 cwt., 17s.; 1 cwt., 19s. 6d. per cwt.; 56 lb. for 11s. 6d.; 28 lb. for 6s. **SODIUM SULPHITE (PURE).**—7 lb., 1s. 9d.; 1 lb., 2s. per lb., bottles and jars free. **SODIUM SULPHIDE, RECRYST.**—One cwt., 21s. 6d. per cwt.; 56 lb. for 13s. 6d.; 28 lb. for 7s.

**POTASSIUM PERMANGANATE (B.P.).**—British makers' scale of prices for home trade is as follows: Not less than one cwt., 10½d.; not less than three cwt., 10d., in drums; not less than 5 cwt., 9½d. in 1-cwt. drums and 9½d. in 5-cwt. drums, net, delivered buyer's station, drums free. Technical or commercial quality, one cwt., 96s.; three cwt., 91s. 6d.; five cwt., 89s.; one ton, 86s. 6d. per cwt., in 1-cwt. drums.

**POTASSIUM SULPHOGUAIACOLATE.**—The spot value is steady in the region of 6s. 2d. per lb., as to quantity.

**QUININE SALTS.**—Convention prices continue steady: Sulphate, 2s. 3d.; bisulphate, 2s. 3d.; ethyl carbonate, 2s. 11d.; salicylate, 2s. 11½d.; hydrochloride, 2s. 10d.; dihydrochloride, 3s. 1½d.; hydrobromide, 2s. 10d.; dihydrobromide, 3s. 1½d.; valerianate, 3s. 9½d.; phosphate, 3s. 5½d.; hydrophosphate, 4s. 1½d.; alkaloid, 3s. 1½d. per oz., 100-oz. tins free, carriage paid on bulk quantities.

**RESORCIN.**—Makers' prices; no imported material: 56 lb., 5s. 6d.; 28 lb., 5s. 7d.; 14 lb., 5s. 9d.; 7 lb., 6s.; smaller parcels, up to 6s. 6d. per lb.

**SALICYLIC ACID (B.P.).**—Makers' prices unchanged: five cwt., 1s. 7d.; one cwt., 1s. 7½d.; 28 lb., 1s. 10d.; 14 lb., 1s. 11d.; 7 lb., 2s. 0½d.; 4 lb., 2s. 2½d. per lb.

**SODIUM SALICYLATE (B.P.).**—Makers' scales of prices are steady: home trade, crystals or powder, five cwt., 1s. 5½d.; one cwt., 1s. 6d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10½d.; 7 lb., 1s. 11½d.; 1 lb., 2s. 4d. per lb.

**SULPHONAL.**—Dealers' quotations competitive: crystals or powder, two cwt., 15s. 5½d.; one cwt., 15s. 10½d.; 56 lb., 16s. 1d.; smaller parcels, up to 16s. 7½d. per lb.

**TANNIC ACID (B.P. LEVISS).**—Market continues firm and quoted dearer at about 2s. 9d. to 3s. per lb., as to quantity.

**TARTARIC ACID (B.P. CRYSTALS).**—Market is steady: British makers quote at 1s. 1½d. per lb. less 5 per cent. discount, dealers offering foreign materials at competitive prices.

**TERPINEOL.**—Convention prices continue at the reduction recently noted: ten cwt., 1s. 2d.; five cwt., 1s. 2½d.; one cwt., 1s. 3d.; smaller quantities, up to 1s. 6d. per lb.

**STRYCHNINE SALTS.**—Makers' scales of prices for these products have been revised. Home trade and Empire (excluding Canada) prices are as follows:—

	Under 250 oz.	250 oz. and under 500 oz.
Pure Crystals	Per oz. s. d. 1 4	Per oz. s. d. 1 3½
Pure Precip.	1 4	1 3½
Acetate	1 10½	1 10
Arsenate	1 9½	1 9
Arsenite	1 10½	1 10
Bisulphate	0 10½	0 10
Hydrochloride	1 2	1 1½
Hypophosphite	3 4½	3 4
Nitrate Crystals	1 2	1 1½
Nitrate Powder	1 2	1 1½
Nitrate Powder No. 2	0 10½	0 10½
Phosphate	2 1½	2 1
Sulphate Neut. Cryst.	1 0½	1 0
Sulphate Neut. Powder	1 0½	1 0
Sulphate Neut. Powder No. 2	0 10½	0 10½

Terms net 30 days. 25-oz. tins free. Smaller packages charged extra. 1-oz. bottles 2d. extra. Delivered home market or c.i.f. export. For export: discount 1 per cent. cash in 10 days. Cases free. Buyers held covered against price reduction for 10 days after arrival of steamer at port of destination. Contracts can be booked for 250 oz. upwards with fall clause, delivery over six months.

**TREOBROMINE.**—The new scales of prices for Continental material continue steady, as follows: Pure, less than 56 lb., 8s. 8½d.; 56 lb., 8s. 6½d.; one cwt., 8s. 4½d. per lb. Soda sal., less than 56 lb., 6s. 10d.; 56 lb., 6s. 9d.; one cwt., 6s. 8d. per lb., delivered United Kingdom, duty paid. Cases and 5-lb. tins free. Smaller packings extra.

**TRYMOL.**—Synthetic, fine white, one cwt., 6s.; 56 lb., 6s. 4d.; 28 lb., 6s. 9d.; less than 28 lb., 7s. 6d. per lb., tins extra; ex ajowan seed, one cwt., 8s. 5d.; 56 lb., 8s. 10½d.; 28 lb., 9s. 5d.; 14 lb., 10s. 6d. per lb.

**VANILLIN.**—Convention prices for home trade are unchanged: ex clove oil or guaiacol, five cwt., 11s.; one cwt., 11s. 1½d.; 56 lb., 11s. 3d.; smaller quantities, 11s. 6d. per lb.

### Crude Drugs, etc.

**ACONITE ROOT.**—Dealers are offering small spot parcels of Napellus at about 110s. and Japanese at about 75s. per cwt., ex store.

**AGAR.**—Steady call for spot supplies with values fully maintained. Shipment business seems to have been of small account for this market but quotations from the source are very steady: spot, Kobe, No. 1, 3s. 9d.; No. 2, 3s. 6d.; Yokohama, No. 1, 3s. 5d. per lb.; shipment, new crop, January-February, Kobe, No. 1, 3s. 5d. to 3s. 6d., as to shipper; February-March, Kobe, No. 1, 3s. 4½d.; Kobe, No. 2, 3s. 3d.; Yokohama, No. 1, 3s. 1d. per lb., c.i.f.

**ALKANET ROOT.**—A limited supply is available here with holders asking 45s. to 50s. per cwt., as to quantity.

**ALOES.**—The Cape product is reported to be steadier at the source. Curaçao continues very firm and a fair spot business is noted; no shipment offers. Cape description remains dull. Cape, spot, in boxes, 47s. 6d.; shipment, 43s. per cwt., c.i.f. Curaçao, spot, 180s., up to 190s. for livery.

**ANTIMONY.**—Values steady, market quiet: Chinese, crude, spot, £37; shipment, January-February, £30, c.i.f. English regulus, £71 per ton, ex store.

**BALSAMS.**—Quiet business with values maintained: *Tolu*, 1s. 9d.; *Canada*, 3s. 1½d.; shipment, 2s. 10½d.; *Copaiba*, 1s. 8d.; *Peru*, 4s. per lb., spot.

**BELLADONNA.**—Limited inquiry on spot: leaves, 56s.; root is scarce and nominal on spot.

**BENZOIN.**—Business quiet, values maintained: Sumatra quoted steady at 70s. to 90s. per cwt., as to quality. Siam, medium almonds, £26 10s.; bean and pea, £21 per cwt., ex store.

**BUCHU.**—Market is dull; spot quotations are easy and there seems to be very little interest in recent shipment offers: spot, round, 1s. 3d. to 1s. 5d.; ovals, 1s. 2d. to 1s. 3d. per lb., as to quality and quantity; shipment, old crop, 1s. 2d., c.i.f. The only offers of new crop have been for February-March shipment, with 1s. 4d. per lb., c.i.f., asked, but a bid at slightly less would be considered.

**BURDOCK ROOT.**—Dealers are quoting spot supplies at about 45s. per cwt., ex store.

**CAMPHOR.**—Modest spot business at former values: Japanese monopoly BB brand, £7 10s. per 100 lb.; Japanese, natural, spot, tablets, 2s. 6d.; powder, 2s. 3d.; slabs, 2s. 2½d. per lb., ex store; shipment, tablets, 2s. 2d.; powder, 1s. 10½d.; slabs, 1s. 10½d. per lb., c.i.f. English refined flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz., and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ½ oz. and 1 oz., 3s. 6d.



**CANIHARIDES.**—Small spot offers only reported: Russian, 4s. 3d. to 4s. 6d.; Chinese, spot, 1s. 11d. to 2s. per lb., as to quantity.

**CARDAMOMS.**—The general tone in this market continues firm, although business is quiet: shipment, Aleppy greens, f.a.q. the season, 2s. 5½d., c.i.f.; Aleppy seed, 3s. 8d. to 3s. 9d., c.i.f.; Mangalore seed, 3s. 3d., c.i.f.; Mangalore, partly bleached A, 3s. 1d. per lb., c.i.f.; spot, Aleppy seed, 4s.; Mangalore seed, 4s. per lb., ex store. Bleached descriptions on spot have been advanced 3d. to 6d. per lb.

**CASCARA SAGRADA.**—A few spot orders for limited quantities reported with values quite steady: spot, 1938 bark, 52s. 6d.; 1937 bark, 57s. 6d.; 1936 bark, up to 65s. per cwt., ex store, duty paid. No shipment offers from the source.

**CASSIA FISTULA.**—Spot supplies are available at about 26s. 6d. per cwt., ex store, as to quantity.

**CHAMOMILES.**—Supplies of good white flowers are mentioned in the region of 150s. per cwt. and less for seconds.

**CLOVES.**—Values are steady, market quiet: Zanzibar, spot, 8½d.; shipment, February-March, 8d. per lb., c.i.f. Madagascar, in bond, 8d.; shipment, February-March, 6½d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended January 14, were *nil* and the deliveries 8, leaving a stock of 299. From January 1 to date the landings of Zanzibar have been *nil* and the deliveries 19. Landings of Madagascar for the week ended January 14, were *nil*, and the deliveries 124, leaving a stock of 319. From January 1 to date the landings of Madagascar have been *nil* and the deliveries 124.

**COCONUT (DESICCATED).**—Market is steady, business limited: spot, fine, 17s.; medium, 17s. 6d. per cwt.; shipment, halves, January-February, 16s. 3d. per cwt., c.i.f.

**COD-LIVER OIL.**—The Bergen advice states business in the shipment continues on a minor scale: finest Lofoten steam-refined non-freezing medicinal oil, 84s. to 85s. per barrel, c.i.f., London. Small lots, on spot, about 130s. per barrel, ex store, duty paid. British finest medicinal oil, 115s. per 25-gallon drum, delivered U.K., with rebates for 25 or more drums. Exports of Norwegian oil during 1938 totalled 82,303 barrels, compared with 100,237 barrels in 1937, and 96,428 barrels in 1936.

**ERGOT.**—A steadier tone is reported here, after the recent weakness, due, it is stated, to good purchases for Continental account: Spanish, old crop, 4s. 2d.; Portuguese, spot, about 4s. 3d. to 4s. 4½d.; shipment, about 3s. 10d., c.i.f. Polish, spot, about 3s. 8d. per lb., as to seller and quantity. No Russian available.

**GENTIAN.**—Good French root is listed up to about 32s. per cwt., as to quantity, and Continental in the region of 30s. per cwt.

**GINGER.**—West African has reached very low values on spot: West African, spot, 21s.; for arrival, 19s. per cwt., c.i.f. Jamaican, spot, bold, in barrels, 65s. to 75s.; medium, bold, in bags, 47s.; small grinding, in bags, 40s. to 42s. 6d. per cwt., c.i.f.

**GUM ACACIA.**—Continues steady but only in limited demand on this market: Kordofan, cleaned sorts, spot, 39s.; shipment, 36s. 6d. per cwt., c.i.f.

**HENNA.**—Limited spot inquiry, values steady: Egyptian, brown, 30s.; green, 35s. per cwt., c.i.f.

**HONEY.**—A quiet business is reported, with all quotations continuing at former rates: Jamaican, dark, manufacturing, 29s. up to 40s. for pale set. Canadian, new crop, steady at 42s. 6d. to 45s., as to quality. Californian, white clover, 47s. 6d. per cwt., duty paid. Small lots of all descriptions at higher prices.

**HYDRASTIS.**—Business of small account, quoted values unchanged: U.S.P., spot, 12s. 10½d.; shipment, 12s. 7½d. per lb., c.i.f.

**IPECACUANHA.**—Business continues on the slow side, but there is no give in prices: Matto Grosso, B.P., spot, 6s. 10½d. to 7s., as to test; shipment, 6s. 9d. per lb., c.i.f. Carthagenia, 5s. per lb., spot.

**MENTHOL.**—The Japanese product has received a moderate consuming inquiry on spot: K/S brands, spot, 12s. 10½d. to 13s.; near afloat parcels, 11s. 3d., c.i.f. Japanese shippers quote January-March, 10s. 9d., c.i.f. Chinese, spot, 12s. 1½d.; shipment, February-March, 10s. per lb., c.i.f. French is quoted to come forward at competitive prices.

**MERCURY.**—The shipment quotation for Spanish-Italian metal is unchanged at 70 dollars per bottle, f.o.b. Continent; spot, £15 4s. per bottle, ex store.

**OPIMUM.**—Average business, market steady: Turkish, 13 per cent., 1s. 2d.; Iranian, 12 per cent., 1s. 1d. per unit, landed and duty paid.

**ORANGE PEEL.**—Supplies of bitter quarters in very limited quantity and quoted at 9d., and bitter ribbon at 8½d. per lb., ex store.

**PEPPER.**—Business has been quiet, with values steady as quoted: Lampung, in bond, 2½d.; shipment, January-March, 2½d.; March-May, 2½d., c.i.f. Tellicherry, spot, 4d.; shipment, January-March, 33s., c.i.f. Aleppy, spot, 4d.; shipment, January-March, 33s., c.i.f. White Muutok, in bond, 3½d.; shipment, January-March, 3½d.; March-May, 3½d., c.i.f. London Terminal Market: Black, January, 2½d.; March, 2½d.; May, 2½d.; July, 2½d. White, January, 3½d.; March, 3½d.; May, 3½d.; July, 3½d. per lb.

**PIMENTO.**—Forward market quoted dealer: spot, 8d. per lb.; shipment, January-March, 70s. per cwt., c.i.f.

**QUILLAYA BARK.**—Dealers are offering spot supplies of whole bark at about 27s. 6d. per cwt., as to quantity.

**RHUBARB.**—Fully steady on spot, and sales of rough round and Shensi continue at full figures. Inquiry has been made for shipment, but there are no offers: spot, rough round, from 1s. 11d. up to 2s. 2d., as to seller and quality. Shensi, 5s. per lb., ex store.

**RUBBER.**—Business has been restricted and values show a loss on the week: standard ribbed smoked sheet, spot, 7½d.; January, 7½d.; February, 7½d.; March, 8d.; April-June, 8½d.; July-September, 8½d.

**SEEDS.**—**ANISE.**—Spot, duty paid, Spanish, 55s.; Bulgarian, 41s. 6d.; Russian, 41s. CANARY.—Spot, duty paid, Mazagan, 16s.; Morocco, 14s. 9d.; Turkish, 12s. 9d.; Plate, 13s.; Spanish, 25s. to 37s. CARAWAY.—Dutch, spot, 32s., duty paid; 27s. 9d. f.o.b. Holland. CORIANDER.—Morocco, on spot, quoted at 17s. to 17s. 6d., duty paid, and 15s. 6d., in bond. CUMIN.—Malta, on spot, is 45s., duty free. Morocco quoted at 46s., duty paid; for shipment, 41s., c.i.f., now quoted. FENNEL.—Indian, 21s. to 22s. 6d., spot. FENUGREEK.—Spot, Morocco, 12s. 6d., duty paid; Indian, 13s. MUSTARD.—English, 22s. to 29s. 6d., according to quality.

**SENEGA.**—Some inquiry, some of which is for re-export, market firm: spot, 2s. 10d.; shipment, nominal, no offers.

**SENNA.**—Values for all descriptions steady while business is limited: Tinnevely leaves, good green quality, in short supply: spot, No. 1, 6½d.; No. 2, 4d.; No. 3, 2½d.; No. 4, 2½d., and slightly less for old crop leaves. Tinnevely pods, good greenish hand-picked offer at 5d. to 6d., with dark grades at 3½d. to 4d. Manufacturing qualities scarce and firm at 2½d. per lb. Alexandrian hand-picked pods: no supplies of new crop yet to hand: medium to good, No. 1, 3s. 6d.; No. 2, 2s. 6d.; No. 3, 2s., with inferior grades from 1s. to 1s. 9d. per lb., ex store.

**SHELLAC.**—Market is firm with more inquiry on hand: spot, standard TN orange, 39s. to 42s.; fine orange, 52s. 6d. to 80s.; pure button, 47s. 6d. to 50s. per cwt. For delivery, TN, March, 39s. 6d.; May, 40s. For arrival, TN, February-March, 38s. per cwt., c.i.f.

**TRAGACANTH.**—There has been a fair inquiry for medium grade gums, ranging from £16 to £20 per cwt. Other grades are quoted unchanged: finest selected, white ribbon, £60; No. 1, white, £55 to £57 10s.; No. 2, white, £50 to £53; No. 3, white, £35 to £42 10s.; amber leaf, £32; cleaned amber sorts, £16; brown to amber leaf, £11 10s.; red leaf, £9 to £10; hoggy, £6 to £7 per cwt., ex store.

**TURMERIC.**—Market is steady, but business has been of small account: spot, polished Madras finger, in limited supply at 32s. per cwt., ex store; shipment, prompt, 28s., c.i.f.; new crop, April-May shipment, 26s. per cwt., c.i.f.

**VALERIAN ROOT.**—Dealers report occasional business, with the spot value about 35s. per cwt., ex store.

**WAXES.**—**BEES.**—Spot supplies of good yellow wax reported limited and fully steady at 100s.: Dar-es-Salaam, spot, 100s.; shipment, 95s., c.i.f. Benguala, 90s., in bond; shipment, 84s. 6d., c.i.f. Conakry, 90s. in bond; shipment, 84s. 6d., c.i.f. CARNAUBA.—Near forward positions quoted easier, market is quiet: fatty grey, spot, 145s.; afloat, 139s.; shipment, January-February, 138s., c.i.f. Chalky grey, spot, 144s.; shipment, January-February, 135s., c.i.f. Primeira, spot, good quality, 185s.; shipment, January-February, 180s.; Mediana, spot, 177s. 6d.; shipment, 175s. per cwt., c.i.f.

### Essential and Expressed Oils, etc.

GENERAL trade in these products is only moderate, with most orders for limited quantities. Australian eucalyptus is much firmer. Sicilian lemon has a slightly easier tendency, with recent shipment quotations irregular.

**ALMOND.**—Small spot business only. English-made, cwt. lots, 2s. 5d.; smaller parcels, up to 3s. per lb.; foreign, cwt. lots, 2s. 6d.; smaller parcels, up to 3s. per lb. French bitter, 6s. to 6s. 1½d. per lb.

**ANISE (STAR).**—The spot demand for this oil is still slow, and holders again tend to shade their prices. There are one or two shipment offers at about spot parity, but no interest is being taken in the forward position: spot, leads, nominal; tins, about 3s. 4d.; drums, 3s. 3d. per lb., ex store.

**BERGAMOT.**—We are advised that the Consortium shipment quotation for new crop oil is steady at 15s. per lb., c.i.f. Spot values vary according to quality, but genuine oil in small lots would be 15s. 3d. to 15s. 6d. per lb.

**BOIS DE ROSE.**—Rather more inquiry, market steady: drums, 5s. 9d., with smaller quantities, re-packed, up to 6s. 3d. per lb., ex store; shipment, 5s. 6d., c.i.f., minimum three drums.

**CAJUPUT.**—Business of small account: B.P., 1s. 11d. to 2s. 4d. per lb., as to quantity, spot.

**CAMPHOR.**—Acute scarcity of supplies of white oil, and prices are a matter of negotiation. No shipment offers. Japanese, 180s. per cwt., in small parcels. No Chinese oil available.

**CANANGA.**—Easier on a dull market: spot, 4s. 3d. to 4s. 9d. per lb., according to quantity and packing; shipment about 4s. per lb., c.i.f.

**CARAWAY.**—Moderate spot business, market steady: Dutch rectified, 7s. 3d. to 7s. 9d.; crude, 6s. 9d. to 7s. 3d. per lb., as to quantity, landed and duty paid. Some shipment offers of Russian are reported.

**CASSIA.**—Business remains dull, but holders of good quality oil are not inclined further to cut their prices: sellers of leads at about 3s. 4d. and drums at 3s. 3d.



**CASTOR.**—Continues steady, demand quiet at 39s. 6d. per cwt., in barrels, ex store, London. Hull, 2s. per cwt. less. Small quantities, packed in cases, 4s. 6d. per cwt. extra.

**CITRONELLA.**—Conditions in these markets remain depressed, with low values for shipment not attracting much interest: Ceylon, spot, drums, from 1s. 6½d.; smaller parcels, up to 1s. 11d.; shipment, drums, about 1s. 4d. per lb., c.i.f. Java, spot, drums, about 1s. 7½d.; smaller parcels, up to 2s.; shipment, drums, around 1s. 1¼d. per lb., c.i.f.

**CLOVE.**—Fair amount of small spot business: Madagascar, spot, drums, 2s. 8d. per lb., if available; smaller parcels, up to 3s. 3d. English distilled, 4s. 6d. to 4s. 9d. per lb., ex store.

**COCONUT.**—English deodorised is quoted steady at £24 10s. per ton, in barrels, ex works.

**EUCALYPTUS.**—The source reports by cable sharply firmer conditions for shipment. It is stated that owing to the prolonged drought and heat the crop of oil from the main distillers is a failure. Shipment offers are reserved and for February-March only. Spot values of branded oils have been increased: Australian, 70 to 75 per cent., tins, 1s. 6d.; drums, 1s. 5d.; 80 to 85 per cent., tins, 1s. 8d. per lb., ex store, with higher prices for small lots; shipment, 70 to 75 per cent., tins, 1s. 5d.; drums, 1s. 4½d.; 80 to 85 per cent., 1s. 7d. per lb., c.i.f.

**HO (SHIU).**—Continues firm on a short spot supply; no shipment offers: spot, "improved" quality, 4s. 9d.; "extra," 5s. per lb., ex store.

**JUNIPER BERRY.**—Quotations vary on the quality of the product from about 3s. 3d. to 3s. 9d. per lb., for limited quantities.

**LAVENDER.**—The position at the source is reported to be rather easier: finest quality 38 to 40 per cent. quoted at 12s. 9d. to 13s. per lb., with other oils at cheaper prices. Lavandin is offering at 5s. to 5s. 3d. per lb., ex store.

**LEMON.**—Shipment offers of new crop oil cover a wide range of prices at the moment; a limited amount of business is reported, mostly in the cheaper oils. The lowest quotation for Sicilian hand-pressed seen was at 9s. 9d., c.i.f., with other offers up to 10s. 6d. per lb., c.i.f. Machine-made oil is offering at about 1s. less. Spot values depend on the quality of the oil. Californian distilled in limited supply on spot at 1 dollar 54 cents per lb. Californian cold-pressed, 9s. per lb., landed.

**LEMONGRASS.**—This market remains neglected and at low values: spot, 1s. 7d. to 1s. 10d. per lb., as to quantity and packing; shipment, 1s. 4½d. per lb., c.i.f.

**LIME.**—Market is quiet, quotations unchanged: West Indian distilled is in the region of 17s. 6d. per lb.

**LINSEED.**—Raw oil, in small quantities, 25s. 6d. per cwt.; boiled oil, 28s. 6d. per cwt., ex works.

**OLIVE.**—Values are steady, with a moderate demand reported: B.P., 1 per cent., 6s. 1½d. to 6s. 3d. per gallon, in drums. Edible quality, ten 1-gallon tins, in cases, 84s.; twenty ½-gallon tins, in cases, 86s. per case; drums, 6s. 4½d. per gallon, ex store.

**ORANGE.**—Some quotations received have been at lower figures, but it is stated that there is a quantity of old oil of doubtful quality for disposal at the Coast. It seems for good quality, new crop oil the figure is not less than 2s. 1d. per lb., c.i.f., and some quotations are at 2s. 2d., c.i.f. The crop is reported to be late and fully 25 per cent. short. Spot, in drums, about 2s. 8d.; tins, re-packed, up to 3s. per lb. Californian, small drums, 59 cents; two or more cases, 61 cents per lb., ex store. Florida, cold-pressed, 85 cents per lb., in drums, landed, London.

**PALMAROSA.**—Now and again there has been isolated cheap shipment offers, but, invariably, when an order was offered, the reply has been to the effect that the market has advanced: spot, about 8s. per lb. for bulk purchases; shipment is steady at 7s. 3d. per lb., c.i.f. Java oil is available at about 4s. 3d. per lb., ex store.

**PEPPERMINT.**—The Japanese product has been rather quiet, but the tone continues steady: spot, 4s. 7½d. to 4s. 9d., as to seller and brand. A number of October-December declarations are still outstanding. Afloat parcels are quoted at 4s. 5d., c.i.f., with buyers at 4s. 2d., c.i.f. Japanese shippers quote January-March at 4s. 3d., c.i.f., with market sellers of this position at 4s. 2d., c.i.f. There is little doing in the shipment market for natural American oil, in drums, but the quotations are steady at 2 dollars 25 cents to 2 dollars 35 cents per lb., c.i.f.

**SPEARMINT.**—A little more inquiry, quoted unchanged: U.S.P. oil, spot, about 9s. 3d. to 9s. 4½d.; shipment, 8s. per lb., c.i.f.

**SPIKE.**—Spot quotations for genuine fine quality Spanish oil continue steady on spot at about 5s. 3d. to 5s. 6d. per lb., ex store. Inferior oils at cheaper figures.

**TURPENTINE (AMERICAN).**—London stocks on January 7 totalled 30,068 barrels; spot, London, 33s. 6d.; Hull, 34s. 6d.; Liverpool, 35s. per cwt. Market is steady at the advance.

**VETIVERT.**—Business quiet, some qualities offered at keen prices: Bourbon, about 15s. to 16s. 6d. per lb., and slightly less for drums, ex store.

**WORMSEED.**—Market is steadier, with some inquiry being received: U.S.P. oil, spot, 9s. 9d. to 10s.; shipment, 9s. 6d. per lb., c.i.f.

## Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary and Year-Book," 1939, p. 342.

(From "The Trade Marks Journal," December 28, 1938)

### SCHEDULE IV

- "BRESAL"; for fertilisers (1). By G. G. Warwick, 5 Carlton Road, Burnley. 601,873.
- "ACTUALITE"; for perfumery, etc. (3). By Société Nouvelle Dorin, 36 Rue des Renouillers, Colombes (Seine), France. 601,140.
- "RADDIM"; for toilet goods (3). By H. E. Jarvis & Co., Ltd., 6 Percy Street, London, W.1. 602,100.
- "DIVINIA"; for perfumery, etc. (3). By F. Wolff & Sohn, G.m.b.H., 31 Robert Wagner Allee, Karlsruhe, Baden, Germany. 601,418. (Associated.)
- "SAY So"; for anti-pyretic and analgesic substances (5). By Matthews Laboratories, Ltd., 10 Hensman's Hill, Clifton, Bristol. 601,811.
- "PRENTIF" with device of padlock marked "Security" (word "Security" disclaimed); for medicated preparations (5). By Prentif, Ltd., 123 Newgate Street, London, E.C.1. 601,202. (Associated.)
- "VITRON"; for veterinary preparations (5). By Meat Trading Co., Ltd., London Bridge House, Borough High Street, London, S.E.1. 602,004.
- "ISOPHYSE," "ISOFRIGE," "ISOVARINE," "ISOVULASE," "ISONERGINE," "ISOVACUIL"; for medicated veterinary preparations (5). By Laboratoire d'Isotherapie Appliquée, 135 Avenue de Neuilly, Neuilly-sur-Seine, France. 602,151/2/3/4/5/7. (Associated.)
- "ZAM-BOIDS"; for suppositories for treatment of hæmorrhoids (5). By C. E. Fulford, Ltd., 58 Carlton Cross Street, Leeds. 602,285. (Associated.)
- "AERO"; for electric shavers (8). By G. & M. Lane & Co., Ltd., 24 Ludgate Hill, London, E.C.4. 601,798.

(From "The Trade Marks Journal," January 4, 1939)

### SCHEDULE III

- CAMPHEUGENE"; for inhalants containing camphor (3). By Inhaling Drug & Apparatus Co., Ltd., 87 Eccleston Square, London, S.W.1. B580,176. (Associated.)
- "HEB"; for medicinal chemicals (3). By J. Halden & Co., Ltd., Rowsley Grove, Reddish, Lancs. 587,086. (Associated.)
- "VI-SYNERAL"; for preparations containing vitamins and minerals (3). By U.S. Vitamin Corporation, 250 East 43rd Street, New York, U.S.A. 585,359.

### SCHEDULE IV

- "PURASIEL" for fatty acids (1). By The Lord Mayor, Aldermen and Burgessess of the Corporation of Bradford, The Town Hall, Bradford, Yorks. 601,086.
- "PERMIRON"; for water purifying and softening preparations (1). By The Permutit Co., Ltd., Permutit House, Gunnersbury Avenue, London, W.4. 602,160.
- "TRICO"; for preparations to prevent condensation of moisture on glass (1). By Trico-Folberth, Ltd., Great West Road, Brentford, Middlesex. 602,368.
- "TULIP"; for industrial chemicals (1). By Thorium, Ltd., Great Westminster House, Horseferry Road, London, S.W.1. 602,975.
- "JASMANTHIA"; for perfumery, etc. (3). By Firmenich & Cie, 1 Chemin des Mélézes, Genève, Switzerland. 602,322.
- "FRESCOS"; for impregnated toilet pads (3). By T. J. Smith & Nephew, Ltd., Neptune Street, Hull. 602,374.
- "BIOMETICA"; for toilet preparations (3); pharmaceutical substances (5). By Biometica, Ltd., 5 Rampayne Street, Vauxhall Bridge Road, London, S.W.1. 602,791/2. (Associated.)
- "STARWINK"; for cosmetics (3). By Ida Gordon-Stables, 120 Crawford Street, London, W.1. 602,962.
- "THREE CHEERS"; for perfumery, etc. (3). By Marjorie Castle, Ltd., 55 Grosvenor Street, London, W.1. 602,913.
- "SEVENTH HEAVEN"; for perfumery, etc. (3). By Saville Perfumery, Ltd., 124 Rickmansworth Road, Watford, Herts. 603,065.
- "SUNLIGHT"; for soaps (3). By Lever Bros., Port Sunlight, Ltd., Port Sunlight, Cheshire. 602,446. (Associated.)
- "ZERK"; for soap (3). By M. D. Curwen, 174 Grove End Gardens, London, N.W.8. 602,724.
- "FLOWER PAGODA CAKES" within rectangle; for preparations for treatment of worms (5). By A. S. Watson & Co., Ltd., Alexandra Buildings, Des Vœux Road, Hong Kong. 600,799. (Associated.)
- "PARAGEN"; for prophylactic vaccines for injection (5). By Bayer Products, Ltd., 31 Basinghall Street, London, E.C.2. 600,943.



## Correspondence

Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

### Appreciations

SIR,—We wish to thank you for the copy of the 1939 edition of your *Year Book* which you have been good enough to send us and which will be of great utility to us. With every good wish for the year just begun.

Yours faithfully,

RODOLFO ONOS,

Barcelona.

Secretary, British Chamber of  
Commerce for Spain.

SIR,—I compliment you on the excellent matter in this week's number. The present generation do not know how to prescribe like the old-timers, and the notes on diseases and their treatment (p. 41) will give a lead to the study of that branch instead of the rule-of-thumb stock prescription or recipe. I frequently think of days gone by—I am told this is a weakness of old age—when men did read up the details of the most important complaints, and the effect of drugs—and we really did get results. When medical men do this it is called "empirical treatment, but when a chemist does the same thing with the same drugs it is called (by them) quackery.

Yours faithfully,

Liverpool.

J. G. WALLBRIDGE.

### "Oliver Twisting"

SIR,—The "big push" to tide over the financial difficulties in connexion with the new "Brunswick Palace of Varieties" has begun. The optimistic note of the appeal from the Square (signed by the two Thomases), coupled with the fervent Gwalian supplication from Liverpool, should surely stir the hearts of the "faithful" with money to burn. It seems to me, however, that only pharmacists from overseas who have sentimental memories of their alma mater will be stirred enough to disburse, for I cannot visualise chemists in the homeland being enthusiastic on a project concerning which they have been always—to put it mildly—lukewarm. It certainly was a clever idea to enlist general sympathy with the memory of the late Sir William Glyn-Jones, and I venture to prophesy that the Liverpool appeal will be more productive than any other. It is a sorry reflection on the vision and foresight of the original agitators for the scheme that they already have to beg for another £100,000 to cover their deficiencies. It is interesting to know that "enthusiasm is now assured," but, as any ordinary pharmacist, I "hae ma doots."

Yours truly,

SENECTACUS (10/1).

## Points from Letters

### *Ethics and Advertising*

I cannot see why pharmacists should not advertise accuracy in dispensing, unless it is considered to imply that the dispensing of other chemists is not accurate, or perhaps it is thought unprofessional. If chemists are to be truly professional, then they should not advertise at all, but until that time comes it is open for us to advertise "neatness and accuracy" for our work, as do other traders.—J. C. (31/12).

### *Information Supplied*

As a matter of interest to you, we are returning your letter. It had the misfortune to be in the mail which you might have seen reported lost in the Indian Ocean. Salvaged after prolonged immersion, P.M.G. Australia had a corps of "decipherers" re-envelope, and we are informed that more than 99 per cent. of the mail has been delivered to addressees.—G. W. B. (Melbourne) (5/1).

[The letter was dispatched from London on November 22, 1938, and was in response to an inquiry from one of our Australian subscribers.—EDITOR.]

## Miscellaneous Inquiries

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them

J. C. F. (Dundalk) (9/1).—EUSOL.—The correct formula is:

Chlorinated lime	..	..	..	12.5 gm.
Boric acid	..	..	..	12.5 gm.
Distilled water	..	..	..	to 1,000 c.c.

Triturate the chlorinated lime with a little water to form a paste, then add the remainder of the water. Add the boric acid, shake well, allow to stand for several hours in a filter.

D. R. G. (16/1).—FLUID BEEF.—In the recipe for beef and wine essence in "Pharmaceutical Formulas," Volume II, the fluid beef is made from lean meat free from fat, cut into slices and the juice pressed out. This is then mixed with a third of its bulk of glycerin and to each ounce is added ten grains of salt. A flavouring, such as essence of thyme and vanillin, may be added if required.

T. C. L. (16/1).—COLD AND INFLUENZA MIXTURE.—The formula for which you ask is as follows:—

Potassium nitrate	..	..	..	1 oz.
Ipecacuanha wine	..	..	..	4 fl. oz.
Spirit of nitrous ether	..	..	..	4 fl. oz.
Solution of ammonium acetate	..	..	..	16 fl. oz.
Chloroform water	..	..	..	10 fl. oz.
Water, sufficient to produce	..	..	..	100 fl. oz.

W. F. (13/1).—TREATMENT FOR VARICOSE VEINS.—The system of treatment which you appear to have in mind teaches that each chemical element normally present in the human body has a definite function and that it is the task of the physician to discover these functions and to prescribe accordingly. The theory originated, we believe, in America, and has obtained serious attention in this country. In practice the amounts of many of the ingredients prescribed are necessarily small, and spectroscopic analysis is required for demonstrating their presence in the medicine.

T. K. (31/38).—SHARK OIL.—The dosage of this oil is similar to that of cod-liver oil.

M. M. C. (11/1).—MALT VINEGAR.—It has been forbidden under the Public Health (Preservatives in Food) Order to add anything in the nature of a preservative to vinegar. Your trouble in regard to the "growing" or germination of malt vinegar in bottles is due to the fact that the bottles are actually "dirty"—that is to say, they are infected with a yeast plant or one of the fungi. Bottles intended to be filled with malt vinegar should be heated to 180° F. in a hot air cupboard, and if possible the vinegar should be sterilised at this temperature and bottled and corked while warm. When table vinegar is exposed to the air even in household use, it is frequently found that during hot weather the fermentation proceeds and the yeast plants form a scum on the surface.

## Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," January 19, 1889

### The Pharmacy Bill and the Curriculum

The proof that the present qualifications of chemists and druggists are ample for the work which they have to perform was stated year after year by the late Dr. Greenhow in his official reports to the Privy Council, and Sir Douglas Maclagan has on no occasion expressed himself differently. The promoters of the Pharmacy Bill go directly against these influential opinions by asserting that the examinations have ceased to become a true test of fitness, and that it is necessary to ensure their efficiency by enforcing a curriculum of study. No proof has been put forward that the results would justify the means, and none which is at all reasonable has been given to show chemists that if they become better educated in the college sense their calling will improve. There is many a pharmaceutical chemist throughout the country at present attempting with his superior abilities to combat the new kind of business which incorporated pharmacy has introduced, and the experience of the majority in that position is that it is business tact, rather than professional qualifications, which wins the day.



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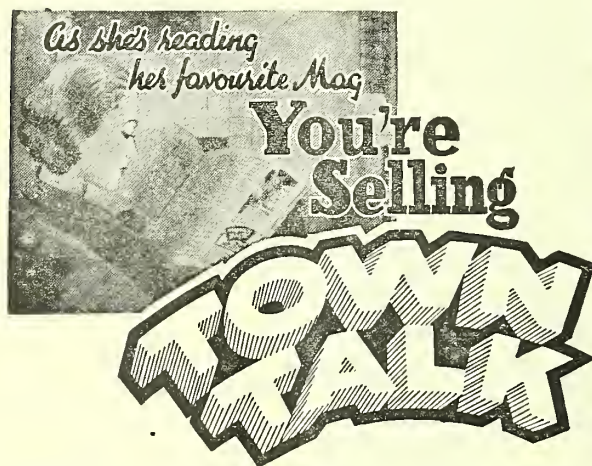
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Carbohydrates absent	6.2%	Carbohydrates absent	9.1%	Carbohydrates absent	11.8%
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Fat absent	absent	Fat absent	absent	Fat absent	absent

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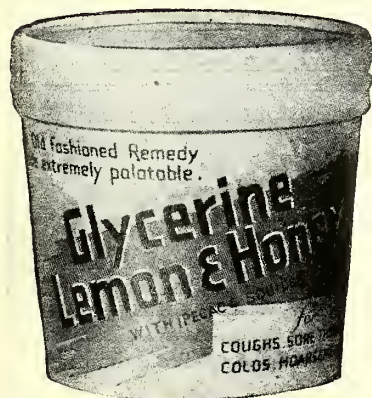
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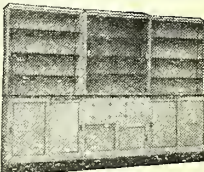
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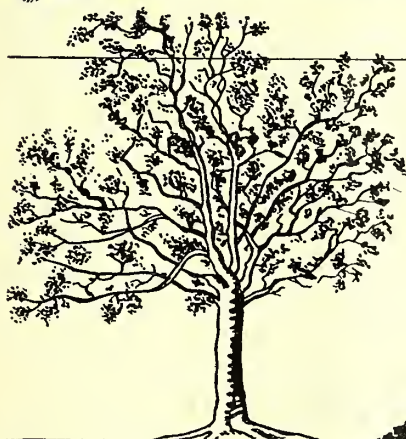
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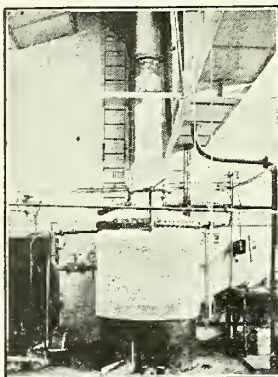
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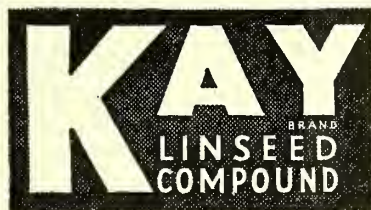
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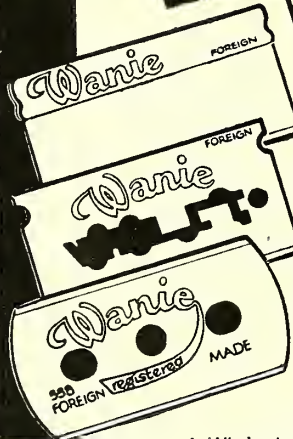
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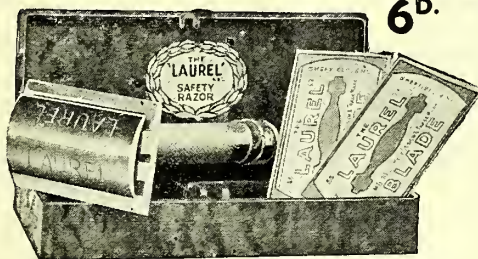
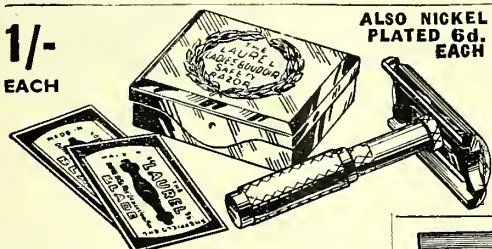
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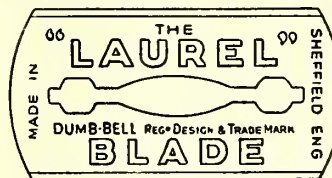
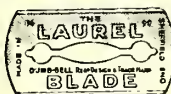


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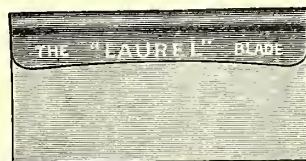
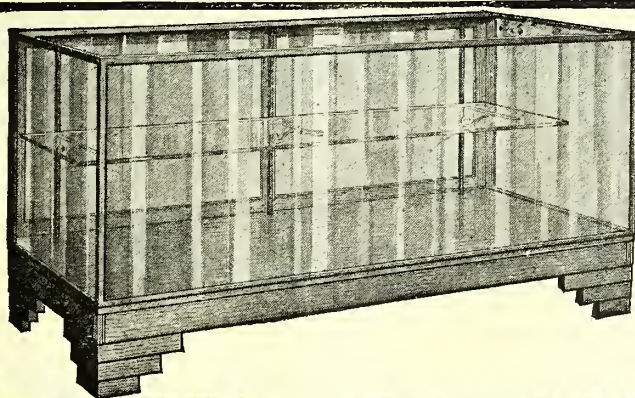
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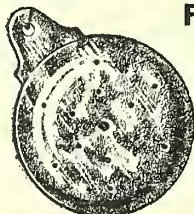
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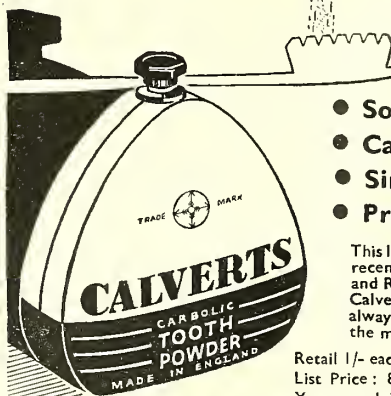
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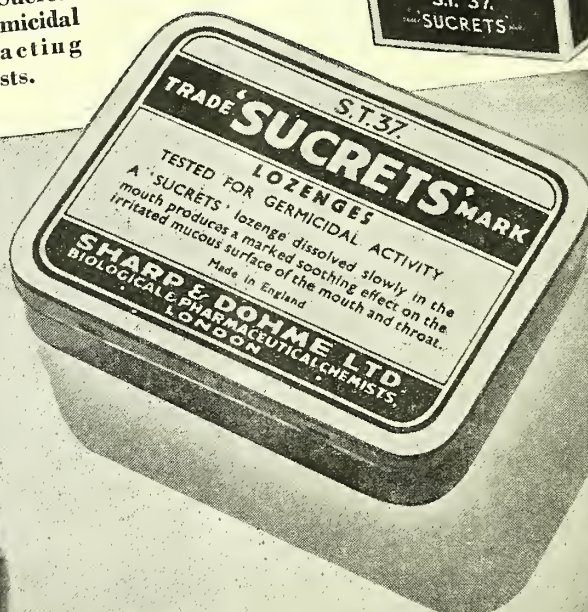
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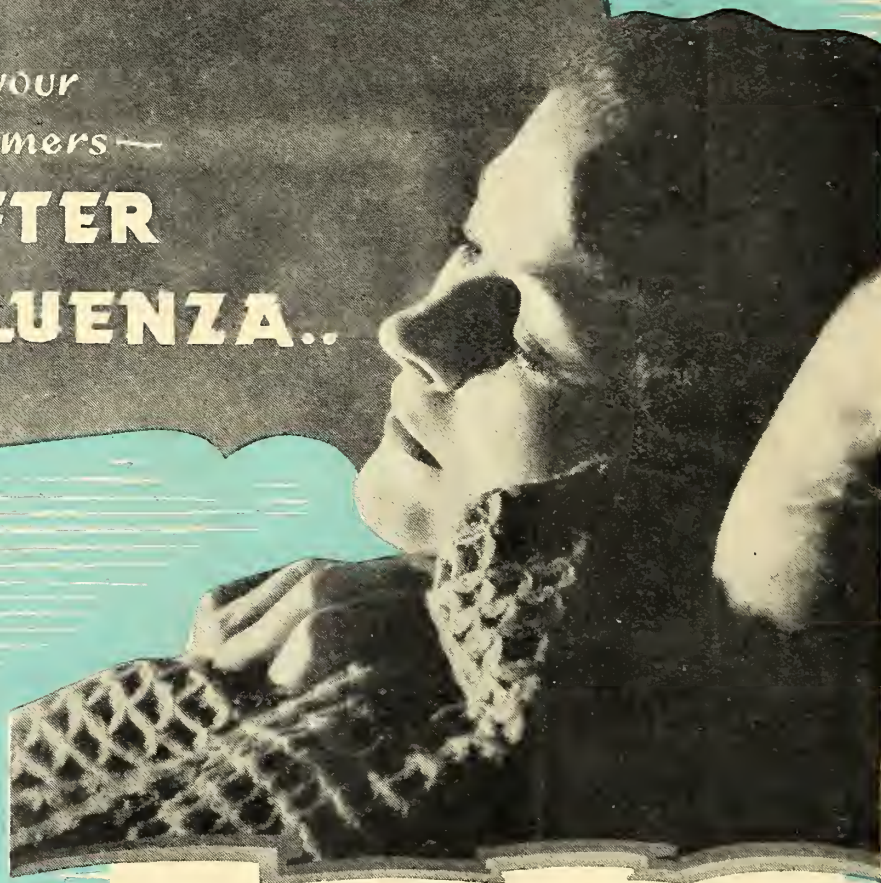
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